

1 BILL NO. S-80-07-*26*

2 SPECIAL ORDINANCE NO. S-*85-80*

3

4 AN ORDINANCE approving Civil City
5 Purchase Order No. 4-08651 with
6 Allen County Tractor Sales, Inc.
for equipment for the Street De-
partment.

7

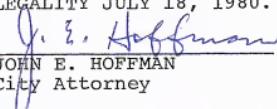
8 BE IT ORDAINED BY THE COMMON COUNCIL OF THE CITY OF
9 FORT WAYNE, INDIANA:

10 SECTION 1. That Civil City Purchase Order No. 4-08651
11 dated July 2, 1980, between the City of Fort Wayne, by and
12 through the City Purchasing Director and the Board of Public
13 Works and Allen County Tractor Sales, Inc. for the purchase of
14 one Ford A62, 1980 Front End Loader with Rops, Cab to be used
15 in the Street Department at a cost of \$33,162.91 from 1980
16 Revenue Sharing Fund, all as more particularly set forth in
17 said Purchase Order, which is on file in the Office of the
18 Department of Purchasing and is by reference incorporated
19 herein and made a part hereof, be and the same is in all things
20 ratified, confirmed and approved.

21 SECTION 2. That this Ordinance shall be in full
22 force and effect from and after its passage and approval by
23 the Mayor.

24 
COUNCILMAN

25 APPROVED AS TO FORM AND
26 LEGALITY JULY 18, 1980.

27 
28 JOHN E. HOFFMAN
City Attorney

29
30
31
32

Read the first time in full and on motion by Stear,
seconded by Eisburt, and duly adopted, read the second time
by title and referred to the Committee Finance (and the City
Plan Commission for recommendation) and Public Hearing to be held after
due legal notice, at the Council Chambers, City-County Building, Fort Wayne,
Indiana, on 19, the 19 day of August, at 10:00 o'clock M., E.S.T.

DATE: 7-22-80

Charles W. Westerman
CHARLES W. WESTERMAN
CITY CLERK

Read the third time in full and on motion by Gia Quinta,
seconded by Eisburt, and duly adopted, placed on its
passage. PASSED (LOST) by the following vote:

	AYES	NAYS	ABSTAINED	ABSENT	TO-WIT:
<u>TOTAL VOTES</u>	<u>6</u>			<u>3</u>	
<u>BURNS</u>	<u>✓</u>				
<u>EISBART</u>	<u>✓</u>				
<u>Gia Quinta</u>	<u>✓</u>				
<u>NUCKOLS</u>				<u>✓</u>	
<u>SCHMIDT, D.</u>				<u>✓</u>	
<u>SCHMIDT, V.</u>				<u>✓</u>	
<u>SCHOMBURG</u>	<u>✓</u>				
<u>STIER</u>	<u>✓</u>				
<u>TALARICO</u>	<u>✓</u>				

DATE: 8-12-80

Charles W. Westerman /me
CHARLES W. WESTERMAN - CITY CLERK

Passed and adopted by the Common Council of the City of Fort Wayne,
Indiana, as (ZONING MAP) (GENERAL) (ANNEXATION) (SPECIAL)
(APPROPRIATION) ORDINANCE (RESOLUTION) No. 85-80
on the 12th day of August, 1980.

ATTEST:

Charles W. Westerman /me
CHARLES W. WESTERMAN - CITY CLERK

(SEAL)

James S. Stier
PRESIDING OFFICER

Presented by me to the Mayor of the City of Fort Wayne, Indiana, on
the 13th day of August, 1980, at the hour of
11:30 o'clock A. M., E.S.T.

Charles W. Westerman /me
CHARLES W. WESTERMAN - CITY CLERK

Approved and signed by me this 18th day of August
1980, at the hour of 9:30 o'clock A M., E.S.T.

Winfield C. Moses, Jr.
WINFIELD C. MOSES, JR.
MAYOR

BILL NO. S-80-07-26

REPORT OF THE COMMITTEE ON FINANCE

WE, YOUR COMMITTEE ON FINANCE TO WHOM WAS REFERRED AN
ORDINANCE approving Civil City Purchase Order No. 4-08651 with
Allen County Tractor Sales, Inc. for equipment for the
Street Department

HAVE HAD SAID ORDINANCE UNDER CONSIDERATION AND BEG LEAVE TO REPORT
BACK TO THE COMMON COUNCIL THAT SAID ORDINANCE *do* PASS.

JAMES S. STIER, CHAIRMAN

MARK GIAQUINTA, VICE CHAIRMAN

BEN EISBART

PAUL M. BURNS

DONALD J. SCHMIDT

8-15-0 CONCURRED IN
DATE CHARLES W. WESTERMAN, CITY CLERK

Memorandum

To Aaron Gluck, Purchasing Director
From George Lee Underwood, Street Commissioner
Subject Bid - 1980 Front End Loader

Date July 1, 1980

COPIES TO:

On June 26, 1980, bids were open for one (1) 1980 Front End Loader.

I would like to recommend the purchase of one (1) 1980 Front End Loader from Allen County Tractor Sales, Inc. because they had the lowest bid and meet all specifications asked for. Allen County Tractor Sales, Inc. have good service and repair parts are available at all times. Their vehicles have performed very well in the past.



George Lee Underwood,
Street Commissioner

GLU:isf



THE CITY OF FORT WAYNE

CITY-COUNTY BUILDING • ONE MAIN STREET • FORT WAYNE, INDIANA 46802

board of public works

July 7, 1980

The Common Council
Fort Wayne, Indiana

Gentlemen and Mrs. Schmidt:

Civil City Purchase Order No. 4-08651 to Allen County Tractor Sales, Inc. in the amount of \$33,162.91 for one Ford A62, 1980 Front End Loader W/Rops. Cab, has been issued, for the use of the Street Department. Allen County Tractor Sales had the lowest bid and met all requirements of Purchasing and Street Department. Said amount to be paid out of 1980 Revenue Sharing Funds.

Street Commissioner, George Underwood has advised the city he is desirous of acquiring the front end loader as soon as possible to assist the department in its work detail.

Therefore, Board of Works respectfully requests a "Prior Approval" so that the above-described purchase order may be processed immediately to enable earliest delivery of said front end loader.

Special Ordinance for formal approval will be submitted in the very near future.

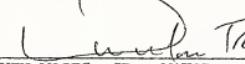
Sincerely,

BOARD OF PUBLIC WORKS



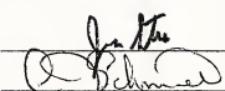
MARK L. AKERS, CHAIRMAN

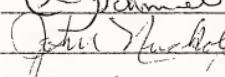
CITY OF FORT WAYNE



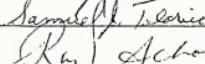
WIN MOSES, JR., MAYOR

ep
APPROVED:

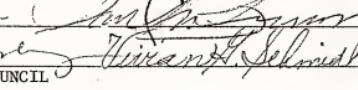


John Schmitz


John Schmitz


Mark C. O'Dell


Samelle Herino


Ray Achorn


Virgil Schmid

MEMBERS OF THE COMMON COUNCIL

ATTEST:



Charles W. Westerman

CHARLES W. WESTERMAN, CLERK AN EQUAL OPPORTUNITY EMPLOYER

Treasurer

CITY OF FORT WAYNE

DEPARTMENT OF PURCHASES
NUMBER ONE EAST MAIN STREET
ROOM 470
FORT WAYNE, INDIANA 46802

MAIL ALL CORRESPONDENCE, CLAIM VOUCHERS ETC. TO:

Street Department 880
1701 S. Lafayette Street
Fort Wayne, Ind. 46803

Allen County Tractor Sales Inc.
4625 Speedway Drive
Fort Wayne, Ind. 46805 0051-01

DELIVER TO:-

DEPARTMENT
OR DIVISION

ADDRESS

CASH DISCOUNT TERMS

% IF PAID WITHIN

DAYS FROM DELIVERY AND

ACCEPTANCE OF GOODS OR PERFORMANCE OF SERVICES. (DEDUCTION FOR DISCOUNT SHOWN BELOW)

PURCHASE ORDER NUMBER

4-08651

DATE July 2, 1980

REF. NO.

REQ. NO. 4783

THE ABOVE INFORMATION MUST APPEAR ON
ALL INVOICES, BILLS OF LADING, DELIVERY
TICKETS, PACKAGES AND CORRESPONDENCE.

INVOICE IN DUPLICATE.

THIS PURCHASE ORDER ISSUED BY:

DEPT. Dept. of Purchases

DATE
WANTED }

APPROPRIATION
AND FUND
NUMBER } 4 02 134 010 4002

QUANTITY ORDERED	UNIT	MATERIALS, SUPPLIES OR SERVICES	UNIT PRICE	AMOUNT
		TAX EXEMPT (UNLESS OTHERWISE INDICATED)		
1		Ford A62 1980 Front End Loader W/Rops. Cab	33,162.91	
		Bid Reference No. 930-G Delivery From Stock		
		SUBJECT TO Councilmanic Approval:		
		AG/ir		

I HEREBY CERTIFY THAT THE COST OF THE ABOVE PURCHASE IS FULLY COVERED BY UNENCUMBERED BALANCES IN THE ABOVE FUNDS AND THAT THE EXPENDITURE THEREFOR HAS BEEN DULY AUTHORIZED AND APPROPRIATED.

I HEREBY CERTIFY UPON MY OWN PERSONAL KNOWLEDGE THAT THIS ORDER IS AUTHORIZED BY A PROPERLY EXECUTED AND APPROVED REQUISITION ON FILE IN THIS OFFICE.

City Controller

Director of Purchases

Per

Per

Memorandum

To Board of Works
From Department of Purchases
Subject Bid Reference No. 930-G

Date July 1, 1980

COPIES TO:

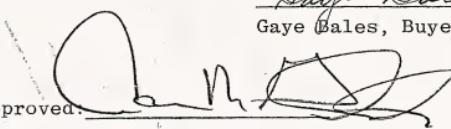
Enclosed are documents in reference to Bid No. 930-G, one (1) Front End Loader for the Street Department, Purchase Order No. 4-08651 has been assigned to Allen County Tractor Sales, Inc.

Allen County Tractor Sales had the lowest Bid and met all the requirements.

Please process immediately for Prior Council-manic Approval. Allen County Tractor Sales has the unit in stock and can be delivered immediately. Make certain that no confirming Purchase Order number is communicated to Allen County Tractor Sales until evidence of Council's approval is furnished to the Purchasing Department.

Gaye Sales

Gaye Sales, Buyer

Approved: 

Aaron M. Gluck
Director of Purchases

CITY OF FORT WAYNE

DEPARTMENT OF PURCHASES

Number One Main St., Ft. Wayne, Ind. 46802

INVITATION

Concretes, subject to the conditions on the reverse hereof, are requested on the following list of materials, supplies, equipment or services, for the department as mentioned, with delivery to destination as shown below. Concretes shall include all charges for delivery, packing, etc. Address your reply as indicated below. 423-7037

*Mail all replies and correspondence, etc. to Attn. of Aaron M. Gluck

DEPARTMENT OF PURCHASES

Room 940 Number One Main St., Ft. Wayne, Ind. 46802

REQUIRED FOR DELIVERY TO:

Department or Division Street Department
1701 South Lafayette
Address Fort Wayne, Ind. 46803

RETURN ORIGINAL TO THE CITY—RETAIN DUPLICATE COPY FOR YOUR FILE

Closing Thursday, June 26, 1980 at 11:00 A.M.
Time of Bids

~~TAXES THE CITY IS EXEMPT FROM FEDERAL EXCISE AND INDIANA STATE SALES TAX. THIS CITY'S INDIANA SALES TAX EXEMPTION CERTIFICATE NUMBER IS NO. 14601. PRICES SHOULD NOT INCLUDE THESE TAXES. See "Instructions to Bidders" No. 10 on reverse hereof for details.~~

TAX EXEMPT (Unless otherwise indicated)

Quantity	Unit	Materials, Supplies, Equipment or Services	Unit Price	Total Amount
1		<p>FORD A62</p> <p>1980 Front End Loader as per W/ROPS. CAB attached Specifications, or equivalent.</p> <p>Questionnaire must be completed in full</p> <p>OPTIONS:</p> <p>MULTI PURPOSE BUCKET</p> <p>3 SPOOL VALVE</p> <p>IF NO CAB DESIRED - DEDUCT \$ 1445.60</p>		33162.91

Affirmative Action: One File: Attached: Bid Bond required YES NO 5% Performance Bond NO EX

See instructions item No. 16 on reverse side hereof.

Terms ~~NET~~ % cash discount if paid within 30 days from delivery and acceptance of goods or completion of services.

PROPOSAL OR BID

In compliance with the above invitation for bids and subject to all conditions thereto, the undersigned offers and agrees, if this bid is accepted within a reasonable time from date of closing, to furnish any or all of the items or render such services upon which prices are quoted, in accordance with the specifications applying and at the prices set opposite each item.

Delivery of any or all of the items or completion of services indicated shall be made within 30 days from receipt of order IMPORTANT

As delivery may be a deciding factor in the award of an order, it is important that bidders furnish the information requested above.

See box *DB Hobbs*

ALLEN COUNTY TRACTOR SALES INC

Name of Company *DB Hobbs* Pres.Per *DB Hobbs*

4625 SPEEDWAY DR

At *FT WAYNE IN*Date *6-26-81*

GENERAL CONDITIONS, INSTRUCTIONS TO BIDDERS AND INFORMATION FOR BIDDERS

1. Special Conditions: Special conditions included in the Bid Document shall take precedence over any provisions stipulated hereunder.
2. Applicable Laws: The Revised statutes of the State of Indiana, and all City ordinances insofar as they apply to the laws of competitive bidding, contracts, and purchases, are made a part hereof.
3. Workmen's Compensation: Insofar as Workmen's Compensation Act is concerned, the bidder or contractor agrees to furnish an official, certificate from the Industrial Board of Indiana, showing that he is in compliance with such law, whenever such certificates are required in the Bid Document.
4. Infringements and Indemnifications: The bidder, if awarded an order or contract, agrees to protect, defend, and save the City harmless against any demand for payment for the use of any patented material, process, article, or device that may enter into the manufacture, construction, or form a part of the work covered by either order or contract and he further agrees to indemnify and save the City harmless from suits or actions of every nature and description brought against it, for or on account of any injuries or damages received or sustained by a party or parties, by or from any of the acts of the contractor, his servants or agents.

To the extent the bidder or contractor agrees to furnish adequate Public Liability and Property Damage Insurance, the amount of which will be determined by the City whenever such insurance is deemed necessary. When so required the types and amounts of insurance to be provided is set forth in the Bid Document.

5. Pricing: Prices should be stated in units of quantity specified in the Bid Document. In case of discrepancy in computing the amount of the bid the unit prices quoted will govern.
6. Delivery: Quotations should include all charges for delivery, packing, crating, containers, etc. Unless otherwise stated by the bidder prices quoted will be considered as being based on delivery to the destination designated in the Bid Document and to include all delivery and packing charges.
7. Specifications: Unless otherwise stated by the bidder the proposal will be considered as being in strict accordance with the specifications outlined in the Bid Document.

Reference to a particular trade name, manufacturer's catalog or model number are made for descriptive purposes to guide the bidder in interpreting the requirements of the City. They should not be construed as excluding proposals on other types of materials, equipment and supplies. However the bidder, if awarded a contract, will be required to furnish the particular item referred to in the specifications or description unless a departure or substitution is clearly noted and described in the proposal.

8. Samples: Samples, when requested, must be furnished free of expense to the City and if not destroyed, will upon request be returned at the bidder's expense.
9. Cash Discounts: Time in connection with cash discount offered, will be computed from date of delivery and acceptance at final destination or from date properly executed claim voucher is received, if the latter date is later than the date of delivery and acceptance.
10. Taxes: The City is generally exempt from Federal Excise and Indiana State Sales Tax. Quotations must be separated to show the amount to be added for taxes of any kind if applicable. Prices should not include tax. The City will pay such taxes as are applicable to this purchase. Exemption forms will be furnished whenever necessary. Taxes wherever indicated and which are applicable to this purchase, will not be subject to any trade or cash discounts.
11. Bid Informalities and Rejection: The City reserves the right to waive informalities not inconsistent with law or to reject any or all bids.
12. Award: Unless otherwise specified in the Bid Document the City reserves the right to accept any item in the bid. Unless otherwise stated in the Bid Document bidders may submit proposals on any item or group of items, provided however that the unit prices are shown as requested.
13. Payment: Partial payments may be made upon presentation of properly executed claim voucher unless otherwise stated in the Bid Document. The final payment will be made by the City when the materials, supplies or equipment has been fully delivered and accepted or the work completed to the full satisfaction of the City.
14. Bidder's Signatures: Each proposal form must be signed by the bidder with his usual signature. All signatures should be in full. Bids by partnership should include the name of the partners composing the partnership and must be signed by one or more of the partners in the following manner: "John Jones and James Smith, d.b.a. Smith-Jones Company, by John Jones, a partner".
Bids by corporations must be signed with the name of the corporation, followed by the signature and designation of the president, vice-president, or person authorized to bind it in the matter.
15. The successful bidder, or contractor, agrees that he will comply with Indiana Acts 1941, chapter 208, section 10, being Burns Indiana Statute 40-1314-1944 supplement regulating such bidder, contractor, or his subcontractor not to discriminate with respect to hiring, tenure, terms, conditions, or privileges of employment because of race, color, religion, national origin or ancestry.
16. Unless otherwise specifically indicated under the individual listing in the legal advertisement or invitation to bid, all bids shall be subject to the following:
 - a. A Bid bond, deposit of cash, certified check or Bank Cashiers Check, in the amount specified, drawn on a solvent bank payable to the City of Fort Wayne or to the contracting division thereof.
 - b. The successful bidder will be required to furnish a bond or Certified Check on a solvent bank, payable to the City of Fort Wayne or to the contracting division thereof, in the amount specified in the notice of bids wanted or the invitation to bid, as a guarantee for the faithful performance thereof.
17. Submissions and Receipt of Bids:
 - a. Proposals, to receive consideration, must be received prior to the specified time of closing as designated in the invitation.
 - b. Bidders must use the Bid Document proposal form furnished by the City as none other will be accepted. Proposal form must be returned intact. Removal of any part thereof may invalidate the bid.
 - c. Bidders are requested to use the Bid Envelope if furnished by the City, or other similarly identified envelope to assure proper handling. Envelopes should be sealed when submitted with information on the face of the Bid Envelope to identify the bid, e.g., Bid Reference number and date of closing and City Agency involved.
 - d. Separate proposals must be submitted on each reference number.
 - e. Proposals having any erasures or corrections thereon may be rejected unless explained or noted over the signature of the bidder.

Accepted	Board of Purchasing Agents	Date
Rejected	Board of Purchasing Agents	Date
Rejected	Board of Purchasing Agents	Date
Rejected	Board of Purchasing Agents	Date

SPECIFICATIONS QUESTIONNAIRE

Bidders Proposal - To Be Completed
By the Bidder

1. Engine: FORD 256 CU. IN DIRECT INJECTION TURBOCHARGED DIESEL
GROSS HP - 97 - NET HP. 92 AT 2100 RPM. BORE 4.4 IN STROKE 4.2 IN
TORQUE AT 1600 RPM 267 FT LBS. 12 VOLT
2. Torque Converter: TWIN TURBINE ALLISON SOFT SHIFT 4.8:1 STALL
3. Transmission: 4 FORWARD - 2 REVERSE
0 - 5.5 LOW RANGE 0 - 22 HIGH RANGE 0 - 7.4 REVERSE
4. Differentials: NO SPIN AUTOMATIC DIFF LOCK FRONT - CONVENTIONAL REAR
5. Axles: HD - INBOARD PLANETARY 4 WHEEL DRIVE. FRONT FIXED - REAR AXLE OSCILLATES 24°
6. Steering: 45° RIGHT AND LEFT ARTICULATION
TURNING RADIUS 13' 8"
7. Brakes: 4 WHEEL HYDRAULIC ACTUATED DOUBLE DISC - (INBOARD SEALED) WET.
PARKING BRAKE FOOT OPERATED - W/ BUZZER + LIGHT - DRUM TYPE ON OUTPUT SHAFT.
8. Loader Linkage: ALL GREASABLE BUCKET PIVOTS NOT SEALED
9. Hydraulic System: 3 SECTION TANDEM PUMP 47 GPM. - 2500PSI - SIGHT GLASS
10 MICRON FILTER - 2 SPOOL VALVE - CYLINDERS DOUBLE ACTING CHROME RODS
RAISE TIME 6.1 SEC LOWER 3.2 DUMP AND ROLL BACK 1.3 SEC
4.5 IN X 26.35 IN LIFT CYLINDER 2.5 IN X 26.35 IN - BUCKET 5.5 X 26.91 IN - STEER CYL 3" X 16.94"
10. Hydraulic Controls: RAISE + HOLD - DOWN PRESSURE + FLOAT - BUCKET ROLL BACK
45° - HOLD + DUMP W/ AUTOMATIC RETURN TO DIG.

11. Service Capacities: COOLING - 24 QT - CRANKCASE - 19 QT - TRANS 36 QT
DIFFERENTIAL FRONT + REAR 30 QT -
HYDRAULIC 40 GAL - FUEL TANK 40 GAL

12. Bucket Size: 2 CU YD - STUCK CAP. 1.68 CU.YD - WIDTH 95"
TIP LOAD STRAIGHT 13,823 LBS. - FULL TURN 11,601 LBS - OPERATING WEIGHT 16,300 LBS
LIFT HEIGHT TO HANGE PINS 11' 10" - DUMP CLEARANCE 9' 4" - REACH AT DUMP 36 7/8"
CUT EDGE REACH 4' 5" - OVERALL LENGTH 19' 2" - CARRY 18' 8" - TURN RADIUS 13' 8"
LIFT CAP. CARRY - 13,823 LBS - BREAKOUT FORCE 17,000 LBS.

13. Standard Equipment: AS PER SPECS. PLUS - REVERSE FAN - 51 AMP ALT. -
NO SPIN FRONT AXLE - BACK UP ALARM - CAB - HEATER - DEFROSTER - WIPERS
FRONT + REAR - TURN SIGNALS - HAZARD SWITCH - POPS. CAB - SEAT BELTS
COUNTER WT.
(SEE LITERATURE ATTACHED)

14. Optional Attachments: MULTI PURPOSE BUCKET - 3 SPOON VALVE

15. Tires: 17.5 x 25 12 PLY L-2

16. Tire Size: OVERALL WIDTH OF TIRES 83.5 IN.

NON-COLLUSION AFFIDAVITSTATE OF INDIANA, }
ALLEN COUNTY } SS:

The undersigned bidder or agent, being duly sworn on oath, says that he has not, nor has any other member, representative, or agent of the firm, company, corporation or partnership represented by him, entered into any combination, collusion or agreement with any person relative to the price to be bid by anyone at such letting, nor to prevent any person from bidding nor to induce anyone to refrain from bidding, and that this bid is made without reference to any other bid and without any agreement, understanding or combination with any other person in reference to such bidding.

He further says that no person or persons, firms, or corporation has, have or will receive directly or indirectly, any rebate, fee, gift, commission or thing of value on account of such sale or contract.



D B Hobrock
D B Hobrock per

Bidder or Agent

For ALLEN COUNTY TRACTOR SALES INC

Firm or Corporation

Subscribed and sworn to before me this 23rd day of JUNE, 1980.

My Commission Expires

7-1-82

Dorothy J. Van Gender

PROPOSAL AND BID SURETY FORM

Page #10 of 10

PROPOSAL:

compliance with the foregoing invitation to bid and subject to all of the conditions thereof the undersigned offers and agrees, if this bid is accepted within a reasonable time from date of opening of bids, to enter into a contract in accordance with the prices stated herein.

The Legal Advertisement, General Conditions, Instructions to Bidders, Information for Bidders, Special Conditions, Specifications, and Plans applying form a part of this proposal.

This proposal is supported by the following bid surety as required by law and signatures affixed thereto constitute both a proposal and bid surety executed by the bidder.

BID SURETY (REQUIRED BY LAW):

BOND FORM: (USE THIS BOND FORM—NO ALTERNATE FORM OF BOND WILL BE CONSIDERED).

KNOW ALL MEN BY THESE PRESENTS, THAT we, the undersigned, are held and firmly bound unto the City of Fort Wayne, State of Indiana, in the sum of Five Percent (5%) of Total Price Bid

Dollars,

to be paid on demand to said City of Fort Wayne, its successors and assigns for which payment well and truly to be made, we hereby bind ourselves, our heirs, successors, executors, and administrators, jointly and severally firmly by these presents.

The condition of this obligation is such that if the bid or proposal attached hereto and made a part hereof and submitted to the within named division of the City of Fort Wayne or its duly constituted agents, is accepted and a contract awarded to the undersigned bidder and the said bidder shall within ten (10) days after notice of said award enter into a contract with the said City of Fort Wayne, State of Indiana, and shall secure the performance of the same by bond or otherwise as may be required to the satisfaction of the City of Fort Wayne, Indiana then this obligation shall be null and void; otherwise to be in full force and effect.

If no corporate surety is furnished, it is necessary that a certificate authorizing the "attorney-in-fact" to sign the bond accompanying the same.

BID CHECK (ALTERNATE FORM OF SURETY):

Certified Check No. _____ in the sum of _____

Dollars

on _____

Bank

of _____

is herewith submitted and deposited in lieu of bond under the same terms and conditions as set forth in the above bond.

Note: If Check is used as Bid Surety—Attach here.

SIGNATURES (BID SURETY AND PROPOSAL):

Witnessed by:

Dorothy J. Van Gorder

OTHER PARTIES INTERESTED IN
THIS PROPOSAL
(See 14—Signatures under General Conditions, etc.)

List all Parties if Partnership

.....

Witnessed by:

Arthur O. Funchess

SURETY

Yaste, Zent & Rye, Inc.
Authorized Agents

Allen County Tractor Sales, Inc.
Name of Bidder—Print or Type
D. A. Holbrook
Signature of Person Authorized to Sign
By _____
Title _____
4625 Speedway Drive
Street Name and Number
Fort Wayne, In., 46825
City, State and Zip Code
Date June 26, 1980

←
See Cover Letter

The Continental Insurance Company
Name of Company — Print or Type
Incorporated _____
In the State of: New York
Address: New York
By: *Lane Ross*
Signature on this Line
Date June 26, 1980

The Continental Insurance Company
80 Maiden Lane, New York, New York 10038
GENERAL POWER OF ATTORNEY

Know all men by these Presents, That THE CONTINENTAL INSURANCE COMPANY has made, constituted and appointed, and by these presents does make, constitute and appoint Arthur C. Frericks or Donald T. Belbutowski or Gerald A. Dahl or Leonard Shirley or Lane Ross or Harold Everett or Vicki L. Anderson all of Fort Wayne, Indiana, EACH

Its true and lawful attorney for it and in its name, place, and stead to execute on behalf of the said Company, as surety, bonds, undertakings and contracts of suretyship to be given to

all obligees

provided that no bond or undertaking or contract of suretyship executed under this authority shall exceed in amount the sum of Five Million (\$5,000,000.) Dollars.

This Power of Attorney is granted and is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company on the 1st day of November, 1977:

"RESOLVED, that the Chairman of the Board, the Vice Chairman of the Board, the President, an Executive Vice President or a Senior Vice President or a Vice President of the Company, be, and that each or any of them is, authorized to execute Powers of Attorney qualifying the attorney named in the given Power of Attorney to execute in behalf of the Company, bonds, undertakings and all contracts of suretyship; and that an Assistant Vice President, a Secretary or an Assistant Secretary be, and that each or any of them hereby is, authorized to attest the execution of any such Power of Attorney, and to attach thereto the seal of the Company.

FURTHER RESOLVED, that the signatures of such officers and the seal of the Company may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Company when so affixed and in the future with respect to any bond, undertaking or contract of suretyship to which it is attached."

In Witness Whereof, THE CONTINENTAL INSURANCE COMPANY has caused its official seal to be hereunto affixed, and these presents to be signed by one of its Vice Presidents and attested by one of its Assistant Vice Presidents this 3rd day of January, 1979.

Attest:

THE CONTINENTAL INSURANCE COMPANY

By



T.H. Stephens, Assistant Vice President



M.L. Ford, Vice-President

STATE OF NEW YORK, {
COUNTY OF NEW YORK, { ss.:

On this 3rd day of January, 1979, before me personally came M. L. Ford, to me known, who being by me duly sworn, did depose and say that he resides in Summit, in the county of Essex, State of New Jersey, at 768 Springfield Avenue; that he is a Vice President of THE CONTINENTAL INSURANCE COMPANY, the corporation described in and which executed the above instrument; that he knows the seal of the said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation and that he signed his name thereto by like order.



CERTIFICATE



ETHEL TARANTO
NOTARY PUBLIC, State of New York
No. 24-4683117 Qual. in Kings County
Commission Expires March 30, 1980

I, the undersigned, an Assistant Secretary of THE CONTINENTAL INSURANCE COMPANY, a New Hampshire corporation, DO HEREBY CERTIFY that the foregoing and attached Power of Attorney remains in full force and has not been revoked; and furthermore that the Resolution of the Board of Directors, set forth in the said Power of Attorney, is now in force.

Signed and sealed at the City of New York. Dated the 26 day of June 19 80



James M. Keane, Assistant Secretary

CITY OF FORT WAYNE

DEPARTMENT OF PURCHASES

Number One Main St., Ft. Wayne, Ind. 46802

INVITATION

Quotations, subject to the conditions on the reverse hereof, are requested on the following list of materials, supplies, equipment or services, for the department as mentioned, with delivery to destination as shown below. Quotations shall include all charges for delivery, packing, etc. Address your reply as indicated below.

423-7037

*Mail all replies and correspondence, etc. to Attn. of Aaron M. Gluck

DEPARTMENT OF PURCHASES

Room 940 Number One Main St., Ft. Wayne, Ind. 46802

REQUIRED FOR DELIVERY TO:

Department or Division Street Department

1701 South Lafayette
Fort Wayne, Ind. 46803

RETURN ORIGINAL TO THE CITY—RETAIN DUPLICATE COPY FOR YOUR FILE

Closing

Time of Bids Thursday, June 26, 1980 at 11:00 A.M.

~~TAXES: THE CITY IS EXEMPT FROM FEDERAL EXCISE AND INDIANA STATE SALES TAX. THIS CITY'S INDIANA SALES TAX EXEMPTION CERTIFICATE NUMBER IS NO. 14482. PRICES SHOULD NOT INCLUDE THESE TAXES. See "Instructions to Bidders" No. 10 on reverse hereof for details.~~

TAX EXEMPT (Unless otherwise indicated)

Quantity	Unit	Materials, Supplies, Equipment or Services	Unit Price	Total Amount
1		<p>1980 Front End Loader as per attached Specifications, or equivalent.</p> <p>New Clark Model 45C Tractor Shovel with Perkins Diesel Questionnaire must be completed in full</p> <p>Unit complete per your specification questionnaire and as stated in enclosed specification sheet.</p>		\$39,506.00

Affirmative Action: One File: XX Attached:

Bid Bond required EX 5% Performance Bond NO EX

See Instructions Item No. 16 on reverse side hereof.

Terms 0 % cash discount if paid within 15 days from delivery and acceptance of goods or completion of services.

PROPOSAL OR BID

In compliance with the above invitation for bids and subject to all conditions thereto, the undersigned offers and agrees, if this bid be accepted within a reasonable time from date of closing, to furnish any or all of the items or render such services upon which prices are quoted, in accordance with the specifications applying and at the prices and expenses herein item.

Delivery of any or all of the items or completion of services indicated shall be made within 60 days from receipt of order.

IMPORTANT

As delivery may be a deciding factor in the award of an order, it is important that bidders furnish the information requested above.

Stockberger Machinery, Inc.

John W. Stockberger
Sec'y-Treas.
2222 Hwy 30 Bypass West

City Fort Wayne, Indiana

Date 6/26/80

SPECIFICATIONS QUESTIONNAIRE

Bidders Proposal - To Be Completed
By the Bidder

(1) NEW - CLARK MODEL 45C TRACTOR SHOVEL - described as follows:

1. Engine: 6-cylinder Diesel Perkins Model 6.354, rated at Maximum H.P. 109; Flywheel H.P. 101, governed RPM 2500; 12 volt, 61 amp electrical system; Max. torque, 1bf.ft-262 @ 1200, N.m - 355 @ 1200; Bore & stroke, in - 3.88 x 5.00, mm - 98.4 x 127.0; 354 cu.in. displacement;

2. Torque Converter: Clark high-efficiency industrial type, single-stage with 2.6 to 1 multiplication factor.

3. Transmission: Clark countershaft type powershift with modulating clutch, three speeds forward, three speeds reverse
mph (each direction) 1st - 1.0; 2nd - 7.7; 3rd - 19.2.
km/h 6,4 12,4 30,9

4. Differentials: Clark Torque proportioning front and rear.

5. Axles: Heavy duty Clark Planetary design with single-piece cast steel housing; all wheel drive. Clark low-friction roller bearing planetary in each wheel.
Front axle fixed; trunnion mounted rear axle oscillates a total of 18 degrees. Total vertical wheel travel of 10.5 in. (267 mm) with all wheels remaining on ground.

6. Steering: Articulated frame, full hydraulic power steering. Turning radius - 18' 2.5".
Angle of Steer: Each direction 35°, total of 70°.

7. Brakes: Service: Front Wheel, hydraulic disc type.
Emergency: Mechanical disc on transmission output shaft, manually actuated by service brake pedal.
Parking: Mechanical disc on transmission output shaft, lever actuated.

8. Loader Linkage: As specified.

9. Hydraulic System: Closed and pressurized with cap'y of 40 gal (151.4 litres), oil supplied from sturdy plate steel reservoir with level sight gauges, in-tank magnets provide extra protection. Full-flow 10 micron filter located in hydr. reservoir.
Raise boom in 6.3 sec, lower boom in 3.3 sec. Roll back bucket in 1.4 sec., Dump Bucket in 1.5 sec. Pump-gear type design, torque converter mounted, total output of 33.75 gpm @ 2500 rpm. Two spool valve with built-in pressure relief valve. Cylinders Two boom & two bucket, all double-acting with chrome plated piston rods.

10. Hydraulic Controls: Boom-bore & stroke: 4.5 x 27.17 in; Bucket-bore & stroke: 3.5 x 25.80 in.
Boom controls: Valve has four positions - raise, hold, lower and float.
Bucket controls: Valve has three positions - rollback, hold and dump.

11. Service Capacities: Cooling System - 9.5 gal (35.9 lit)
 Crankcase - (Perkins) - 3.0 gal (11.5 lit)
 Transmission & torque converter - 5.0 gal (18.9 lit)
 Front & rear axle differentials (each) - 2.0 gal (7.6 lit)
 Hydraulic System/Reservoir - 30.0 gal (113.6 lit)
 Fuel tank - 42.0 gal (160.0 lit)
 Front & rear wheel hubs (each) - 1.0 gal (3.8 lit)

12. Bucket Size: SAE rated capacity - 2 cu.yd.
 Bucket cap'y struck - 1.68 cu.yd.
 Width - 96 inches
 Max. Mat'l wt.-Stockpile - 2,760 lbs./yd.
 Static tipping load-straight - 12,400 lbs.
 w/ ROPS - full turn - 11,050 lbs.
 Basic operating weight w/ ROPS Cab - 20,110 lbs.
 Dump clearance, max height & 45° dump angle - 9'-1.5"
 Reach @ 7' cut edge clearance & 45° dump angle - 5'-0.7"
 Reach at max. height & 45° dump angle - 3'-0.8"
 Overall length, bucket on ground - 20'-2.4"
 " bucket at carry - 18'-29.5"
 Turning radius, outside corner of bucket - 18'-29.5"
 Lift cap'y @ SAE Carry - 1h,800 lbs.
 Breakout force - 1h,500 lbs.

13. Standard Equipment: 12 volt, 61 amp alternator; Automatic bucket positioner;
 Lockable caps (radiator, hydraulic, reservoir, fuel, transmission filler);
 Torque proportioning differentials, front & rear axles; Engine compartment side
 panels, lockable; Horn; Lights (2-tail/stop, 2-front work, cab front & rear
 work); Remote grease fittings; Sealed batteries; Sealed boom & bucket pins; Torque
 converter, single phase; Transmission declutch.

14. Optional Attachments: Adjustable Bucket leveler, backup alarm, heater and defroster,
 rear wiper and washer, ROPS Cab enclosed with tinted safety glass, front windshield
 wiper and washer, turn signal w/ hazard switch.
 Safety related items: Front brakes, handrail, left side mirror, reverse alarm
 and seat belt.

15. Tires: As specified

16. Tire Size: 15.5 x 25 - 12 plv L-2.
 Width over tires - 7'-1.5"
 Change in vert. dimen - -1.5"

CLARK



45C
MICHIGAN

CLARK

*Specifications subject to change
without notice or obligation;
illustrations used in this publication
may include optional equipment.*

CLARK EQUIPMENT COMPANY
CONSTRUCTION MACHINERY DIVISION
BENTON HARBOR, MICHIGAN 49022

Bul. 45C/BR (RMUI)

Printed in U.S.A.





Clark 45C Tractor Shovel

SPECIFICATIONS

	Perkins	GM
Engine	6.354	4-53N
Maximum horsepower (kW)	109 (81)	127 (95)
Flywheel horsepower (kW)	101 (75)	111 (83)
Tires	17.5-25, 12PR (L-2)	
Operating weight	19,760 lb (8963 kg)	
Tipping load, straight	12,790 lb (5802 kg)	
Tipping load, full turn	11,400 lb (5171 kg)	
Breakout force	15,200 lbf (67,61 kN)	
Bucket range	1 1/2 to 2 yd ³ 1,15 to 1,53 m ³	
Dump height @ full lift and 45° discharge angle	9'4.4" (2855 mm)	
Reach @ full lift and 45° discharge	2'9.5" (851 mm)	
Reach @ 45° discharge angle and 7 ft height (2130 mm)	4'9.4" (1458 mm)	

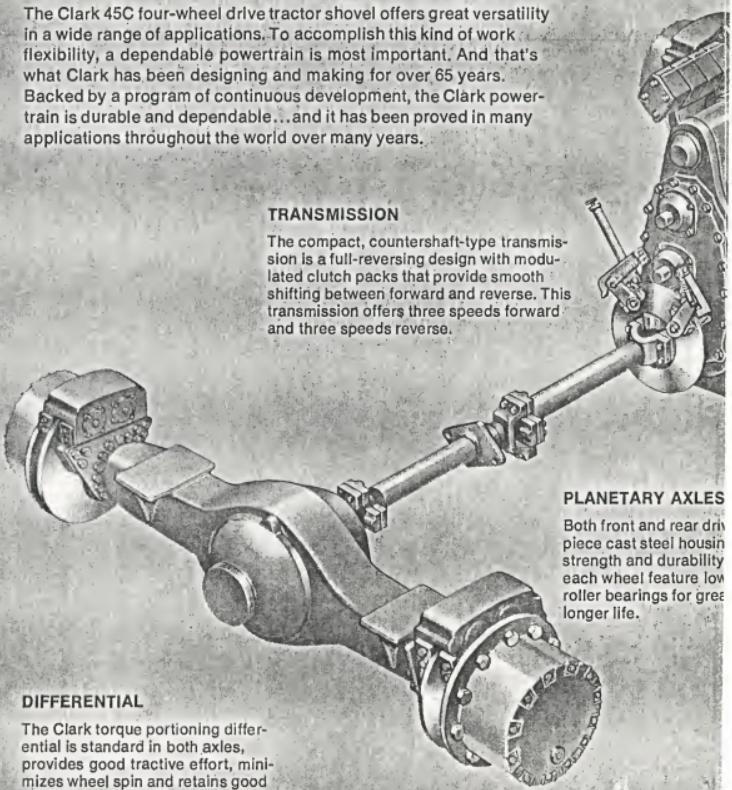
The Clark Integrated Powertrain Automatically Matches Engine Power to Job

The Clark 45C four-wheel drive tractor shovel offers great versatility in a wide range of applications. To accomplish this kind of work flexibility, a dependable powertrain is most important. And that's what Clark has been designing and making for over 65 years.

Backed by a program of continuous development, the Clark powertrain is durable and dependable...and it has been proved in many applications throughout the world over many years.

TRANSMISSION

The compact, countershaft-type transmission is a full-reversing design with modulated clutch packs that provide smooth shifting between forward and reverse. This transmission offers three speeds forward and three speeds reverse.



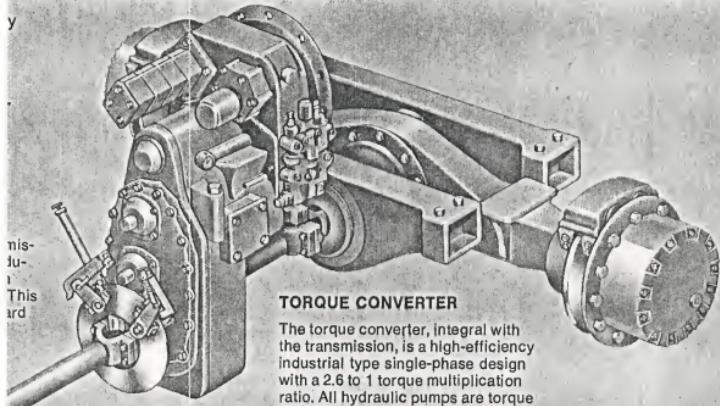
PLANETARY AXLES

Both front and rear drive axles are piece cast steel housings. Strength and durability are increased by the use of each wheel feature low roller bearings for greater longer life.

DIFFERENTIAL

The Clark torque portioning differential is standard in both axles, provides good tractive effort, minimizes wheel spin and retains good turning characteristics with minimum tire scuffing and wear.

Power to Job Conditions

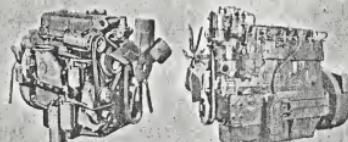


TORQUE CONVERTER

The torque converter, integral with the transmission, is a high-efficiency industrial type single-phase design with a 2.6 to 1 torque multiplication ratio. All hydraulic pumps are torque converter mounted for easy accessibility.

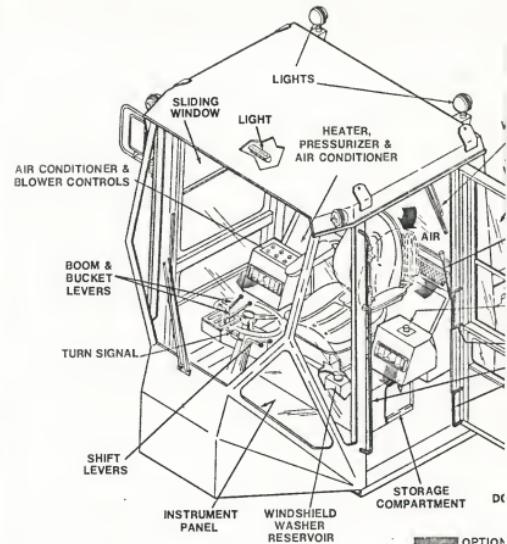
PLANETARY AXLES

Both front and rear drive axles have single-piece cast steel housings for maximum strength and durability. The planetaries at each wheel feature low friction needle roller bearings for greater efficiency and longer life.



ENGINE

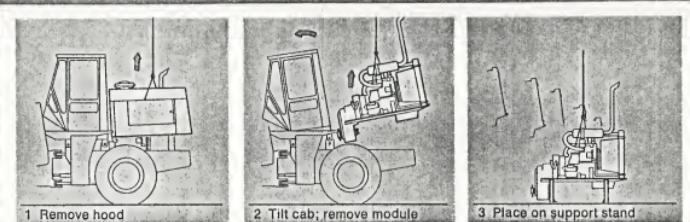
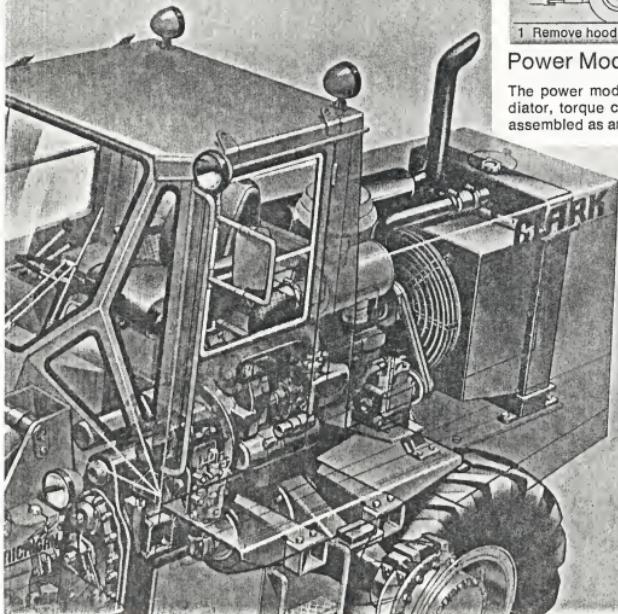
The Clark 45C may be powered by either a Perkins 6.354 or a GM 4-53N diesel engine. Selected to match other powertrain components, either engine provides a most responsive performance in a small package and is backed by world-wide parts and service facilities.



Operating Ease and Comfort... the Key to High Productivity and

From the floor up the operator's compartment has been designed to feature keyed to safety and convenience, features that provide maximum protection and efficiency. The comfortable, contoured bucket seat is within easy reach of all controls — boom and bucket levers located on the right side of the seat, column-mounted speed and direction controls, foot brake and a hand clutch. The optional cab provides additional operator comfort and convenience. The cab has a sound-dampening, acoustical lining helps reduce interior noise and the cab includes a built-in heating and air distribution system with heater/defroster, sliding windows and optional air conditioning and window washers are also available. A storage compartment may be fitted to machines that are roared frequently.

ductivity in a variety of applications.



Power Module

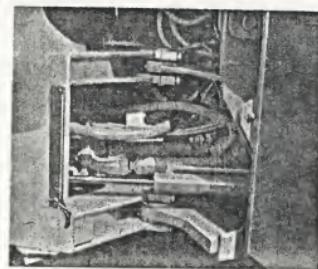
The power module, including the engine, radiator, torque converter and transmission, is assembled as an integral unit. If major service

should ever become necessary, the complete module may be removed as a unit providing convenient service accessibility.



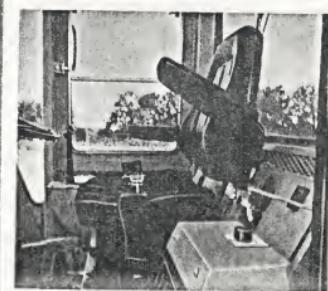
Reverse Alarm

The reverse alarm is automatically sounded when the machine is operated in reverse. This safety feature alerts workers and operators of other equipment in the immediate area.



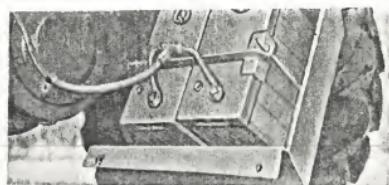
Steering

Powerful twin double-acting cylinders articulate the frame up to 35° in each direction. Wide vertical spacing between hinge pins provides increased stability and strength as well as easy service access.



Contoured Seat

The adjustable, all-vinyl sliding seat is standard; as the seat moves back, it simultaneously rises to match operator height. Cushioned arms swing up to provide easy access to the seat. A fabric covering is optional. A suspension seat option is also available.



Batteries

Batteries are located in a rear compartment on the underside of the machine. This compartment may be lowered to provide complete access to the batteries. Batteries are sealed for life eliminating any need for pre-operational service checks.



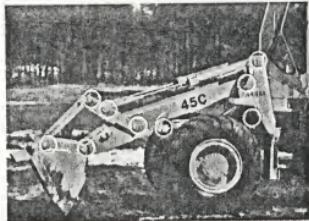
Trunnion-mounted Rear Axle

Excellent stability is promoted by rear axle oscillation. The trunnion-mounted rear axle has the capability of oscillating a total of 18°, helps keep all wheels on the ground.

CLARK

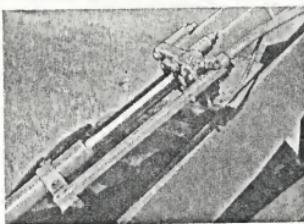
The 45C provides outstanding pro

MICHIGAN



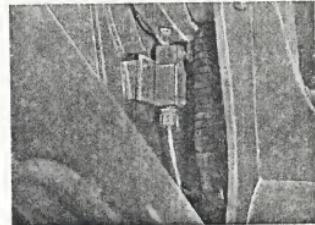
Sealed Pins

Fully sealed pins have a longer life and provide an extended service interval. Their design, with 9 pivot points on each side, keeps lube in and helps keep dirt out.



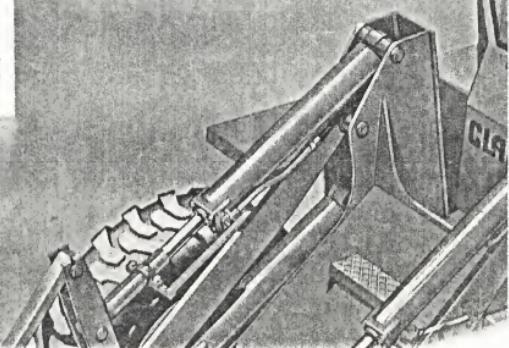
Bucket Leveler

This time-saving convenience feature automatically returns the bucket to a pre-set digging position as the boom is lowered. Allows operator complete freedom to concentrate on steering and other machine functions.



Boom Kickout

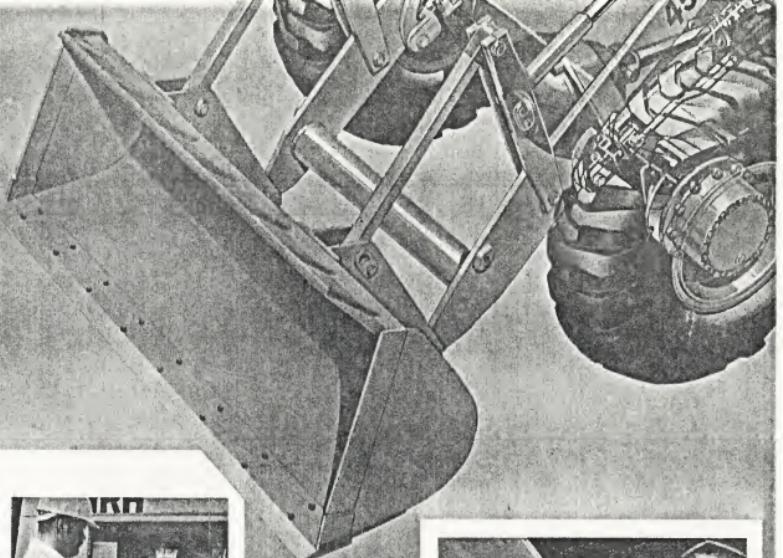
The boom kickout can be adjusted to automatically restrict the boom raise to a pre-determined height. This frees the operator to concentrate on machine movement, leads to increased production and reduces operator fatigue.





Cylinders

Twin boom cylinders and twin bucket cylinders are mounted in-line so that all lifting forces act together. The result is quick response and ample power for fast hydraulic speeds, good breakout.



Service Check and Fill Locations



1. Fuel filler and dipstick



2. Transmission fluid



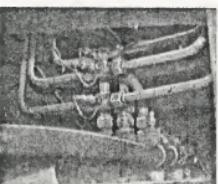
3. Engine oil filter



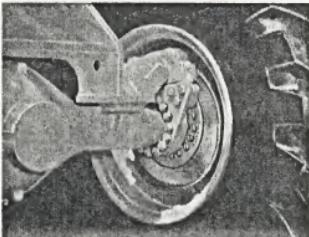
4. Engine coolant



5. Hydraulic reservoir



6. Pressure checkpoints



Brake System

Front wheel hydraulic disc brakes provide responsive and effective braking. The emergency brake is manually actuated through the service brake pedal; parking brake is lever actuated. Emergency and parking brakes act on the transmission output shaft.

*Rear brakes shown are optional

ENGINE

Make	Perkins	GM
Model	6.354	4-53N
*Maximum hp (kW)	109 (81)	127 (95)
**Flywheel hp (kW)	101 (75)	111 (83)
Governed rpm	2500	2500
Maximum torque, lbf·ft	262 @ 1200	270 @ 1800
N·m	355 @ 1200	366 @ 1800
Bore and stroke, in	3.88 x 5.00	3.88 x 4.50
mm	98.4 x 127.0	98.4 x 114.3
Number of cylinders	6	4
Displacement, in ³	354	212.3
litres	5.80	3.48
Electrical system (alternator) ..	12V, 61A	12V, 61A

*Maximum horsepower of basic engine under SAE J816 – barometric pressure of 29.38 in (74.62 cm) hg, 85°F (29.4°C) and maximum engine speed with fuel pump, water pump and lubricating oil pump.

**Net usable horsepower at engine flywheel under SAE J816 – barometric pressure of 29.38 in (74.62 cm) hg, 85°F (29.4°C) and governed engine speed with fan, alternator and air cleaner.

POWERTRAIN

TORQUE CONVERTER: Clark high-efficiency industrial type; single-stage with 2.6 to 1 multiplication factor.

TRANSMISSION: Clark countershaft type powershift with modulating clutch; three speeds forward, three speeds reverse. Travel speeds:*

	1st	2nd	3rd
mph	4.0	7.7	19.2
km/h	6.4	12.4	30.9

*Measured with 17.5-25 tires.

DIFFERENTIAL: Clark torque proportioning front and rear.

AXLES: Heavy-duty Clark planetary design with single-piece cast steel housing; all wheel drive. Front axle fixed; trunnion mounted rear axle oscillates a total of 18°. Total vertical wheel travel of 10.5 in (267 mm) with all wheels remaining on ground.

PLANETARY DRIVES: Clark low-friction, roller bearing planetary in each wheel. Planetary units can be removed without removing wheels and brakes.

TIRES

Tires available (tubeless, nylon body)

17.5-25, 12PR(L-2)	14.00-24, 8PR(G-2)
15.5-25, 12PR(L-2)	13.00-24, 8PR(G-2)
15.5-25, 8PR(L-2)	

BRAKES (SAE J1152) (ISO 3450)

SERVICE: Front wheel, hydraulic disc type.

EMERGENCY: Mechanical disc on transmission output shaft; manually actuated by service brake pedal.

PARKING: Mechanical disc on transmission output shaft; lever actuated.

STEERING SYSTEM

Articulated frame; full hydraulic power steering.

ANGLE OF STEER: Each direction 35°; total 70°.

PUMP: Gear-type design, torque converter mounted. Total pump output is 28.75 U.S. gpm (108.8 litres/min) @ 2500 rpm. Flow control valve maintains constant 11.5 U.S. gpm (43.5 litres/min) flow above 1300 rpm.

RELIEF PRESSURE: 1600 psi (11032 kPa).

CYLINDERS: Two; double-acting with chrome plated piston rods. Bore and stroke – 2.5 x 13.0 in (63.5 x 330.2 mm).

HYDRAULIC SYSTEM

Closed and pressurized with a capacity of 40 U.S. gal (151.4 litres); oil supplied from sturdy plate steel reservoir with level sight gauges. In-tank magnets provide extra protection.

BOOM CONTROLS: Valve has four positions: raise, hold, lower, float.

BUCKET CONTROLS: Valve has three positions: rollback, hold, dump.

PUMP: Gear-type design, torque converter mounted. Total pump output is 33.75 U.S. gpm (127.7 litres/min) @ 2500 rpm.

VALVE: Two spool with built-in pressure relief valve. Mounted in front frame for easy access.

CYLINDERS: Two boom and two bucket; all double-acting with chrome plated piston rods.

Boom, bore & stroke – 4.5 x 27.17 in (114.3 x 690.0 mm)

Bucket, bore & stroke – 3.5 x 25.80 in (88.9 x 655.3 mm)

FILTER: Full-flow 10 micron (return); located in hydraulic reservoir.

HYDRAULIC SPEEDS

Raising time (with load)	6.3 s
Dumping time (with load)	1.5 s
Lowering time (empty)	3.3 s
Total cycle	11.1 s

SERVICE CAPACITIES

	U.S. gal	litres
Cooling system	9.5	35.9
Crankcase (Perkins)	3.0	11.5
Crankcase (GM)	4.0	15.1
Torque converter & transmission	5.0	18.9
Front & rear axle differentials (each)	2.0	7.6
Front & rear wheel hubs (each)	1.0	3.8
Fuel tank	42.0	160.0
Hydraulic reservoir	30.0	113.6

STANDARD EQUIPMENT

Reverse Warning Alarm (SAE J994); ROPS Canopy (SAE J1040) (ISO 3471) with left side; Rearview Mirror; Safety Handrails (SAE J185); Seat Belt (SAE J386); Access Steps; left side; Bucket Positioner; Brake Line Guards; Caps, lockable (fuel, hydraulic reservoir, radiator, transmission filter); Drawbar; Horn; Lights, Work (2 front); Lights, Tail/Stop (2); Sealed Batteries; Sealed Pins; Side Panels, Engine Compartment (hinged, lockable).

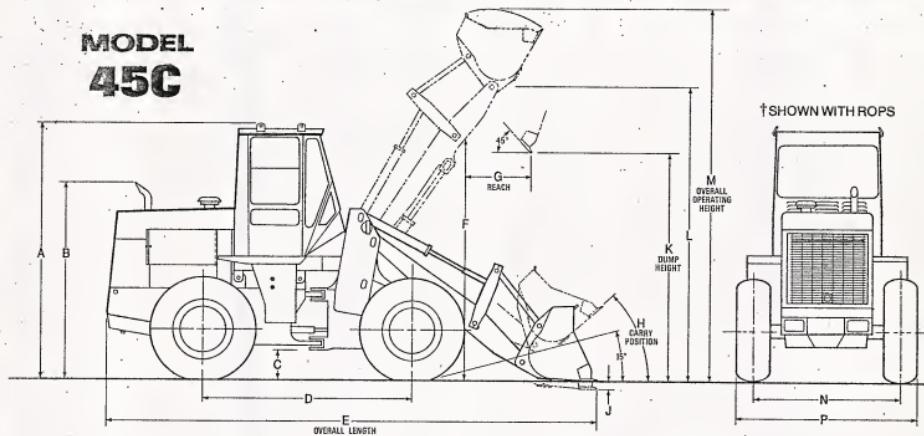
GAUGES: Engine oil pressure, water temperature; torque converter temperature; voltmeter; hourmeter.

SIGHT GAUGES: Hydraulic reservoir, radiator.

FILTERS: Air (dry-type); engine oil, fuel, hydraulic oil (return); torque converter/transmission.

*Changes in standard configuration may change machine dimensions or operating data.

MODEL 45C



†MACHINE DIMENSIONS*

Tire Size	A	B	C	D	E	F	G	H	J	K	L	M	N	P
17.5-25 (L-2) mm	10'1.5" 3086	7'9.75" 2381	1'4" 406	8'4" 2540	..	9'10.5" 3010	..	44°	2.2" 56	..	11'9.5" 3594	..	5'9" 1753	7'3.5" 2223
15.5-25 (L-2) mm	9'11.5" 3035	7'8.25" 2343	1'2.5" 368	8'4" 2540	..	9'9" 2972	..	44°	3.7" 94	..	11'8" 3556	..	5'9" 1753	7'1.5" 2172
14.00-24 (G-2) mm	10'0.5" 3061	7'9.75" 2381	1'4" 406	8'4" 2540	..	9'10.5" 3010	..	44°	2.2" 56	..	11'9.5" 3594	..	5'9" 1753	7'0.5" 2146
13.00-24 (G-2) mm	10'0" 3048	7'8.25" 2343	1'2.5" 368	8'4" 2540	..	9'9" 2972	..	44°	4.2" 107	..	11'8" 3556	..	5'9" 1753	6'11.5" 2121

*Per SAE J732 & J742. **See Operating Data.

OPTIONAL EQUIPMENT and approximate installed weights

	lb	kg		lb	kg
Air Conditioner	200	90,7	Mud Flaps, front	10	4,5
Battery Disconnect	.5	2,3	Multi Task Bucket, 1.50 yd ³ (1,15 m ³)	2070	939,0
Boom Kickout	10	4,5	Rotating Beacon	15	6,8
Brakes, rear wheel	310	140,6	ROPS Cab (SAE J1040) (ISO 3471)		
Bucket Teeth (bolt-on) (8)	160	72,6	with Front Wiper	870	395,6
Counterweight (in lieu of hydroinflation)	650	294,8	Spark Arrestor	30	13,6
Cover, Instrument Panel (lockable)	10	4,5	Speedometer Kit	10	4,5
Cutting Edge, Bucket (bolt-on)	160	72,6	Spillguard, Bucket (bolt-on)	75	34,0
Fabric Seat	0	0	Suspension Seat	50	22,7
Fenders, front & rear	160	72,6	Three Spool Valve & Controls	200	90,7
Forks	1035	469,5	Turn Signal Kit	10	4,5
Fuel Gauge	1	0,5	Windshield Washer Kit	15	6,8
Lights, Work, front (2)	10	4,5	Winterization Group (heater, pressurizer)	75	34,0
Lights, Work, rear (2)	10	4,5	Wiper, rear	5	2,3
Mirror, Rearview (right side)	5	2,3			

ENGINE

Make	Perkins	GM
Model	6.354	4-53N
*Maximum hp (kW)	109 (81)	127 (95)
**Flywheel hp (kW)	101 (75)	111 (83)
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mm	98.4 x 127.0	98.4 x 114.3
Number of cylinders	6	4
Displacement, in ³	354	212.3
litres	5.80	3.48
Electrical system (alternator)	12V, 61A	12V, 61A

*Maximum horsepower of basic engine under SAE J816—barometric pressure of 29.38 in (74.62 cm) hg, 85°F (29.4°C) and maximum engine speed with fuel pump, water pump and lubricating oil pump.

**Net usable horsepower at engine flywheel under SAE J816—barometric pressure of 29.38 in (74.62 cm) hg, 85°F (29.4°C) and governed engine speed with fan, alternator and air cleaner.

POWERTRAIN

TORQUE CONVERTER: Clark high-efficiency industrial type; single-stage with 2.6 to 1 multiplication factor.

TRANSMISSION: Clark countershaft type powershift with modulating clutch; three speeds forward, three speeds reverse. Travel speeds:

	1st	2nd	3rd
mph	4.0	7.7	19.2
km/h	6.4	12.4	30.9

*Measured with 17.5-25 tires.

DIFFERENTIAL: Clark torque proportioning front and rear.

AXLES: Heavy-duty Clark planetary design with single-piece cast steel housing; all wheel drive. Front axle fixed; trunnion mounted rear axle oscillates a total of 18°. Total vertical wheel travel of 10.5 in (267 mm) with all wheels remaining on ground.

PLANETARY DRIVES: Clark low-friction, roller bearing planetary in each wheel. Planetary units can be removed without removing wheels and brakes.

TIRES

Tires available (tubeless, nylon body)

17.5-25,12PR(L-2)	14.00-24,8PR(G-2)
15.5-25,12PR(L-2)	13.00-24,8PR(G-2)
15.5-25,8PR(L-2)	

BRAKES (SAE J1152) (ISO 3450)

SERVICE: Front wheel, hydraulic disc type.

EMERGENCY: Mechanical disc on transmission output shaft; manually actuated by service brake pedal.

PARKING: Mechanical disc on transmission output shaft; lever actuated.

STEERING SYSTEM

Articulated frame; full hydraulic power steering.

ANGLE OF STEER: Each direction 35°; total 70°.

PUMP: Gear-type design, torque converter mounted. Total pump output is 28.75 U.S. gpm (108.8 litres/min) @ 2500 rpm. Flow control valve maintains constant 11.5 U.S. gpm (43.5 litres/min) flow above 1300 rpm.

RELIEF PRESSURE: 1600 psi (11032 kPa).

CYLINDERS: Two; double-acting with chrome plated piston rods. Bore and stroke — 2.5 x 13.0 in (63.5 x 330.2 mm).

HYDRAULIC SYSTEM

Closed and pressurized with a capacity of 40 U.S. gal (151.4 litres); oil supplied from sturdy plate steel reservoir with level sight gauges. In-tank magnets provide extra protection.

BOOM CONTROLS: Valve has four positions: raise, hold, lower, float.

BUCKET CONTROLS: Valve has three positions: rollback, hold, dump.

PUMP: Gear-type design, torque converter mounted. Total pump output is 33.75 U.S. gpm (127.7 litres/min) @ 2500 rpm.

VALVE: Two spool with built-in pressure relief valve. Mounted in front frame for easy access.

CYLINDERS: Two boom and two bucket; all double-acting with chrome plated piston rods.

Boom, bore & stroke — 4.5 x 27.17 in (114.3 x 690.0 mm)
Bucket, bore & stroke — 3.5 x 25.80 in (88.9 x 655.3 mm)

FILTER: Full-flow 10 micron (return); located in hydraulic reservoir.

HYDRAULIC SPEEDS

Raising time (with load)	6.3 s
Dumping time (with load)	1.5 s
Lowering time (empty)	3.3 s
Total cycle	11.1 s

SERVICE CAPACITIES

	U.S. gal	litres
Cooling system	9.5	35.9
Crankcase (Perkins)	3.0	11.5
Crankcase (GM)	4.0	15.1
Torque converter & transmission	5.0	18.9
Front & rear axle differentials (each)	2.0	7.6
Front & rear wheel hubs (each)	1.0	3.8
Fuel tank	42.0	160.0
Hydraulic reservoir	30.0	113.6

OPERATING DATA (with 17.5-25 tires)

Bucket Type	General Purpose	General Purpose	General Purpose
▲ Capacity, Rated (heaped)	yd ³ m ³	1.50 1.15	1.75 1.34
Rated (struck)	yd ³ m ³	1.27 0.97	1.48 1.13
▲ Cutting Edge Width	in mm	93.5 2375	93.5 2375
▲ Dump Height @ Full Lift and 45° Discharge Angle*	mm	2855	9'4.4" 2812 1,26
▲ Reach @ Full Lift and 45° Discharge*	mm	851	2'11.5" 902 3'0.8" 935
▲ Reach @ 45° Discharge Angle and 7 ft (2134 mm) Height*	mm	1458	4'9.4" 1506 1542
▲ Overall Length	mm	6045	19'10" 6114 6157
▲ Overall Operating Height*	mm	4536	14'10.6" 15'1.8" 4618 15'3" 4648
▲ Clearance Circle (bucket in carry position)	m	11.12	36'5" 36'5.4" 11.13 36'5.9" 11.15
▲ Breakout Force	lbf kN	15,200 67.61	15,000 66.72
▲ Static Tipping Load, ** Straight	lb kg	12,790 5802	12,720 5770
Full (35°) Turn	lb kg	11,400 5171	11,330 5139
▲ Operating Weight, ** Total	lb kg	19,760 8963	19,820 8990
			9122

*Dimensions change with tires other than 17.5-25; add (or subtract) as applicable.

**Approximate, based on bucket shown plus ROPS Cab, rear wheel brakes, and rear tire hydroinflation. A change in tire size or the addition (or removal) of optional equipment, attachments; counterweighting or hydroinflation of tires will affect both operating weight and tipping loads. These changes are shown below for certain selected items.

†Changes in standard configuration may change machine dimensions or operating data.

VERTICAL, in (mm)	14.00-24	13.00 & 15.5
1.5 (-38.1)	1.5 (-38.1)	1.5 (-38.1)
1.0 (25.4)	1.0 (25.4)	1.5 (38.1)

	OPERATING WEIGHT CHANGE		FULL TURN TIPPING LOAD CHANGE	
	lb	kg	lb	kg
17.5-25,12PR(L-2) with 75% rear tire Ca Cl ₂ hydroinflation by volume	0	0	0	0
15.5-25,12PR(L-2) with 75% rear tire Ca Cl ₂ hydroinflation by volume	-640	-290	-525	-238
15.5-25,8PR(L-2) with 75% rear tire Ca Cl ₂ hydroinflation by volume	-720	-327	-570	-259
14.00-24,8PR(G-2) with 75% rear tire Ca Cl ₂ hydroinflation by volume	-695	-315	-510	-231
13.00-24,8PR(G-2) with 75% rear tire Ca Cl ₂ hydroinflation by volume	-950	-431	-745	-338
Counterweight (in lieu of hydroinflation) with 17.5-25,12PR(L-2) tires	-530	-240	-360	-163
Counterweight (in lieu of hydroinflation) with 15.5-25,12PR(L-2) tires	-835	-379	-525	-238
Counterweight (in lieu of hydroinflation) with 15.5-25,8PR(L-2) tires	-915	-415	-570	-259
Counterweight (in lieu of hydroinflation) with 14.00-24,8PR(G-2) tires	-975	-442	-600	-272
Counterweight (in lieu of hydroinflation) with 13.00-24,8PR(G-2) tires	-1050	-476	-640	-290
17.5-25,12PR(L-2)	-1180	-535	-1270	-576
15.5-25,12PR(L-2)	-1485	-674	-1435	-651
15.5-25,8PR(L-2)	-1565	-710	-1480	-671
14.00-24,8PR(G-2)	-1625	-737	-1510	-685
13.00-24,8PR(G-2)	-1700	-771	-1550	-703
Brakes, Rear Wheel (removal)	-310	-141	-335	-152
Fenders, front and rear	160	73	90	41
ROPS Canopy (in lieu of ROPS Cab)	-490	-222	-375	-170

CITY OF FORT WAYNE

DEPARTMENT OF PURCHASES

Number One Main St., Ft. Wayne, Ind. 46802

INVITATION

Quotations, subject to the conditions on the reverse hereof, are requested on the following list of materials, supplies, equipment or services, for the department as mentioned, with delivery to destination as shown below. Quotations shall include all charges for delivery, packing, etc. Address your report as indicated below.

423-7037

*Mail all replies and correspondence, etc. to Attn. of Aaron M. Gluck

DEPARTMENT OF PURCHASES

Room 940 Number One Main St., Ft. Wayne, Ind. 46802

REQUIRED FOR DELIVERY TO:

Department or Division Street Department

1701 South Lafayette
Fort Wayne, Ind. 46803

RETURN ORIGINAL TO THE CITY—RETAIN DUPLICATE COPY FOR YOUR FILE

Closing

Time of Bids Thursday, June 26, 1980 at 11:00 A.M.

Page 1 of 10

Ref. No. 930-46

Date June 6, 1980

Date wanted

Fund Appropriation No.

TAXES: THE CITY IS EXEMPT FROM FEDERAL EXCISE AND INDIANA STATE SALES TAX. THIS CITY'S INDIANA SALES TAX EXEMPTION CERTIFICATE NUMBER IS NO. 14426. PRICES SHOULD NOT INCLUDE THESE TAXES. See "Instructions to Bidders" No. 10 on reverse hereof for details.

TAX EXEMPT (Unless otherwise indicated)

Quantity	Unit	Materials, Supplies, Equipment or Services	Unit Price	Total Amount
1		New Caterpillar 920 Wheel Loader		
1		1980 Front End Loader as per attached Specifications, or equivalent.		
		Questionnaire must be completed in full		
		Net FOB, Fort Wayne, Indiana Street Department		\$53,000.00

Affirmative Action: One File: Attached: X

Bid Bond required 5% Performance Bond 5% See instruction Item No. 14 on reverse side hereof.

Terms % cash discount if paid within days from delivery and acceptance of goods or completion of services.

PROPOSAL OR BID

In compliance with the above invitation for bids and subject to all conditions thereto, the undersigned offers and agrees, if this bid be accepted within a reasonable time from date of closing, to furnish any or all of the items or render such services upon which prices are quoted, in accordance with the specifications accompanying and at the prices and expenses herein.

Delivery of any or all of the items or completion of services indicated shall be made within 60 days from receipt of order.

IMPORTANT As delivery may be a deciding factor in the award of an order, it is important that bidders furnish the information requested above.

Signature: MacAllister Machinery Co., Inc.

For John MacAllister, Pres.

Address 7515 East 30th Street

City Indianapolis

Date 6/23/80

SPECIFICATIONS QUESTIONNAIRE

Bidders Proposal - To Be Completed
By the Bidder

1. Engine: Caterpillar 3304 diesel, four-cylinder, 425 cubic-inch, 4.75" bore, 6.0" stroke, 80 net flywheel horsepower, 2200 RPM, 24-volt direct electric starting
2. Torque Converter: single stage, single phase, torque convertor
3. Transmission: full power shift, 4F-3R speeds, top speed of 27.2 mph in forward, 14.4 mph reverse
4. Differentials: conventional
5. Axles: front fixed, total rear oscillation of 28°, four-wheel drive with all wheel planetary final drives
6. Steering: articulation centerpoint, 35° each direction, minimum turning radius 17'1"
7. Brakes: air/hydraulic four wheel caliper disc service brakes, mechanical shoe type parking brake mounted on transmission shaft.
8. Loader Linkage: sealed pins in lift arm and bucket hinge points 100 service hour intervals (except 50 SH on lower bucket pins)
9. Hydraulic System: sealed system, pump output at 2200 rpm and 1000 psi is 33.3 gpm, relief valve at 2500 psi, lift bore 4.25", lift stroke 30.8", tilt bore 4", tilt stroke 16.6", steering bore two 3" cylinders
10. Hydraulic Controls: automatic bucket kickout - standard; automatic bucket positioner - standard, all positions to meet specifications.

11. Service Capacities: cooling - 7.7 gal; crankcase - 5 gal; transmission and torque convertor - 6.7 gal; front differential - 5.5 gal; rear differential - 5.5 gal; hydraulic system - 19.5 gal; hydraulic tank - 14 gal; fuel tank - 39 gal.

12. Bucket Size: Balderson GP - 1.94 cubic yard heaped, 1.6 cubic yards struck, see specifications for further information

13. Standard Equipment: see specifications
turn signals - standard; backup alarm - standard

14. Optional Attachments: multi-purpose bucket, 1.5 yds add \$6,630; rear counterweight add \$570; hydraulics for Mp add \$1,480; heater & defroster add \$1,050; cab with wiper front and rear add \$1595.

15. Tires: 15.5 x 25 12PR (L-2) tires - ballast adds CaCl₂ 425 lbs per tire

16. Tire Size: 15.5 x 25 (L-2) tubeless traction tires



CATERPILLAR

920
Wheel Loader

ROPS cab shown is standard in U.S.A. only.



Summary of features

- Cat 3304 Engine . . . with 425 cu. in. (7.0 litres) displacement.
- Bucket options . . . from 1.50 to 1.75 cu. yd. (1.15 m³ to 1.35 m³).
- Cat designed and manufactured power train . . . for optimum match, performance and efficiency.
- Planetary power shift transmission shifts on-the-go . . . four speeds forward, three reverse . . . for greater operator efficiency and machine productivity.
- Articulated frame steering turns short . . . rear wheels track front for reduced rolling resistance and to help avoid road hazards.
- Caliper disc brakes on all wheels . . . fade-resistant, less affected by weather than drum-and-shoe brakes.
- Sealed loader linkage eliminates daily maintenance on lift arms and bucket hinge pins.
- Automatic bucket controls kick out at pre-set dump height . . . bucket positioner automatically returns bucket to pre-set digging angle . . . no need for visual spotting.
- CAT PLUS . . . from your Caterpillar Dealer . . . the most comprehensive, total product support system in the industry.



Caterpillar Engine

Flywheel horsepower @ 2200 RPM 80
Displacement 425 cu. in. (7.0 litres)

The net power at the flywheel of the vehicle engine operating under SAE standard ambient temperature and barometric conditions, 85° F. (29° C) and 29.38" Hg (995 mbar), using 35 API gravity fuel oil at 60° F. (15.6° C). Vehicle engine equipment includes blower fan, air cleaner, water pump, lubricating oil pump, fuel pump, muffler, air compressor and alternator. Engine will maintain specified power up to 5,000 ft. (1500 m) altitude.

Cat 4-stroke-cycle diesel Model 3304 with four cylinders, 4.75" (121 mm) bore, 6.0" (152 mm) stroke and 425 cu. in. (7.0 litres) displacement.

Precombustion chamber fuel system with individual adjustment-free injection pumps and valves.

Cam-ground and tapered aluminum alloy pistons with 3-ring design, cooled by oil spray. Steel-backed aluminum bearings, Hi-Electro hardened crankshaft journals. Pressure lubrication with full-flow filtered oil. Dry-type air cleaner with primary and safety elements.

Uses economical No. 2 fuel oil (ASTM Specification D396), often called No. 2 furnace or burner oil, with a minimum cetane rating of 35. Premium quality diesel fuel can be used but is not required.

Two 24-volt direct electric starting systems — standard and low temperature. Glow plugs for preheating precombustion chambers included with both.


transmission

Full power shift in four forward and three reverse speeds. Provides on-the-go shifting for greater operator efficiency and machine productivity.

Single lever on left side of steering column controls both speed and direction. Rotate the handle for four forward and three reverse speeds. Move the lever forward or back for directional change. A safety lever locks the transmission control in neutral.

Single-stage, single-phase torque converter.

Maximum speeds with 15.5-25, 12 PR (L-2) tires:

	1st	2nd	3rd	4th
Forward, MPH: (km/h):	4.0 (6.4)	7.3 (11.7)	11.9 (19.2)	27.2 (43.8)
Reverse, MPH: (km/h):	4.8 (7.7)	8.8 (14.2)	14.4 (23.2)	—


axles

Front axle fixed, rear axle oscillates $\pm 14^\circ$, total of 28° , for greater machine stability. One rear wheel can drop or rise a total of $17.3''$ (439 mm) with all wheels remaining on the ground. Free-floating axle shafts carry torque, not machine weight, for long life. Axle shafts can be removed independently of wheels and planetaries for servicing ease.

Conventional differentials. Torque-proportioning differentials, recommended for slippery underfoot conditions only, are optional.


final drives

All-wheel drive with planetary reduction in each wheel. Torque is developed at the wheel, putting less stress on axle shafts. Planetary units can be removed independently of wheels and brakes for servicing ease.


brakes

(System meets OSHA regulations.)

Service — Caliper discs on all four wheels, air/hydraulic actuated. Fade-resistant, less affected by weather than drum-and-shoe brakes. Separate brake circuits for front and rear axles. Two brake pedals: right pedal brakes only; left pedal brakes while neutralizing transmission.

Parking — Mechanical shoe-type mounted on transmission shaft. Operator applies manually.

Emergency — Uses parking brake. When air pressure drops, an audible warning sounds, then brake automatically applies to bring machine to a controlled stop. Operator can also apply manually.


tires

Tubeless, nylon, loader-dozer design.

Choice of:

13-24, 8 PR (G-2) Traction

15.5-25, 12 PR (L-3) Rock

15.5-25, 12 PR (L-2) Traction


steering

Center-point frame articulation. Rear and front wheels track at all times, for greater operator efficiency, lower rolling resistance, reduced tire wear. Full hydraulic power. Full-flow filtering.

Minimum turning radius (over tires) $171''$ (5210 mm)

Steering angle (each direction) 35°

Hydraulic system — Two $3.0''$ (76 mm) bore, double-acting cylinders powered by vane-type pump. Pump sized for excellent steering response at all engine speeds.

Output @ 2200 RPM and

1000 psi (69 bar) 25.4 gpm (96 litres/min)

Relief valve setting 2500 psi (172 bar)


bucket controls

Lift circuit — Positions: raise, hold, lower and float. Automatic kickout adjustable from horizontal to full lift height.

Tilt circuit — Positions: roll back, hold and dump. Automatic bucket positioner adjustable to desired loading angle.

No visual spotting required.


lift arms

Sealed pins in lift arms and bucket hinge points for longer pin and bushing life, lower maintenance costs. Grease once every 100 service meter units, except lower bucket hinge pins, which need grease every 50 SMU.


loader hydraulic system

Sealed with valves enclosed in reservoir to keep out dirt and other contaminants.

Pump output @ 2200 RPM and 1000 psi (69 bar), with SAE No. 10 oil

@ 150° F. (66° C) 33.8 gpm (126 litres/min)

Relief valve setting 2500 psi (172 bar)

Cylinders (double-acting):

Lift — bore and stroke $4.25''$ x $30.8''$ (108 x 780 mm)

Tilt — bore and stroke $4.0''$ x $15.6''$ (102 x 422 mm)

Hydraulic cycle time, rated load in bucket, in seconds (\$):

Raise	Dump	Float down (Empty)	Total
6.0	1.2	3.0	10.2


service refill capacities

	U.S. Gallons	(litres)
Cooling system	7.7	(29.1)
Crankcase	5.0	(18.9)
Transmission and torque converter	6.7	(25.4)
Differential and final drives:		
Front	5.5	(20.8)
Rear	5.5	(20.8)
Hydraulic system	19.5	(74)
Hydraulic tank	14.0	(53)
Fuel tank	39.0	(148)

Operating Specifications

Bucket Type Capacity, rated (\$) (nominal heaped)	General Purpose 1.5 cu. yd. (1.15 m ³)	General Purpose 1.75 cu. yd. (1.34 m ³)	Multi-Purpose 1.5 cu. yd. (1.15 m ³)	Side Dump 1.5 cu. yd. (1.15 m ³)
Capacity, struck (\$)	1.19 cu. yd. (0.91 m ³)	1.37 cu. yd. (1.05 m ³)	1.29 cu. yd. (0.99 m ³)	1.26 cu. yd. (0.96 m ³)
Cutting edge, type	Straight	Straight	Straight	Straight
Width (\$)	96" (2440 mm)	96" (2440 mm)	96" (2440 mm)	106" (2690 mm)
Dump clearance @ full lift and 45° discharge (\$)	91" (2770 mm)	90" (2740 mm)	87" (2620 mm)	81" (2690 mm) 105" (3170 mm)
Side Dump clearance	—	—	—	—
Reach at 45° discharge, 7'0" (2130 mm) clearance (\$)	40" (1220 mm)	41" (1240 mm)	40" (1220 mm)	42" (1270 mm)
Reach at full lift and 45° discharge (\$)	29" (740 mm)	30" (760 mm)	32" (810 mm)	32" (810 mm)
Digging depth (\$)	2.6" (66 mm)	2.6" (66 mm)	4.8" (122 mm)	2.3" (58 mm)
Overall length (\$)	18'9" (5.7 m)	18'10" (5.7 m)	19'5" (5.9 m)	19'1" (5.8 m)
Overall height (\$)	14'8" (4470 mm)	15'0" (4570 mm)	15'2" (4620 mm)	15'1" (4600 mm)
Loader clearance circle (bucket in carry position) (\$)	367" (11.2 m)	368" (11.2 m)	3611" (11.3 m)	388" (11.8 m)
Bucket weight, without teeth	1,370 lb. (620 kg)	1,550 lb. (700 kg)	2,345 lb. (1,060 kg)	1,740 lb. (790 kg)
With teeth	1,630 lb. (740 kg)	1,750 lb. (790 kg)	2,585 lb. (1,170 kg)	1,740 lb. (790 kg)
Static tipping load,** Straight (\$)	13,390 lb. (6070 kg)	13,380 lb. (6060 kg)	12,350 lb. (5600 kg)	12,790 lb. (5800 kg)
Full 35° turn (\$)	12,290 lb. (5570 kg)	12,260 lb. (5560 kg)	11,290 lb. (5120 kg)	11,710 lb. (5310 kg)
Breakout force* (\$)	17,680 lb. (8000 kg)	16,560 lb. (7510 kg)	14,440 lb. (6550 kg)	15,240 lb. (6910 kg)
Operating weight**	18,600 lb. (8440 kg)	18,800 lb. (8630 kg)	19,200 lb. (8710 kg)	19,000 lb. (8620 kg)

⁸Measured 4" (102 mm) behind tip of cutting edge with bucket hinge pin as pivot point, in accordance with SAE J732c (1969).

Measured 4" (102 mm) behind tip of cutting edge with bucket raised, full fuel tank, 15.5-25, 12 PR (L-2) tires with 850 lb. (386 kg) CaCl₂ solution in rear tires, ROPS cab and operator. Machine stability is affected by the tire size, tire ballast or attachments. For selected items add the following to machine operating weight and static tipping load:

15.5-25 12 PR (I-2) tires

15.5-25, 12 PR (L-2) tires

15.5-25, 12 PR (L-3) tires w/75% CaCl₂

13.5-25, 12 PR

13-24, 8 PR (G-2) tires w/75% CaCl_2

1024, 311 (Counterweight)

Without ROPS cab

Without ROPS cap
Canopy, BOPS†

Change in Operating Weight

Change in Articulated

Static Tipping Load

-1,080 lb. (-490 kg)

-1,010 lb. (-458 kg)

140 lb. (63 kg)

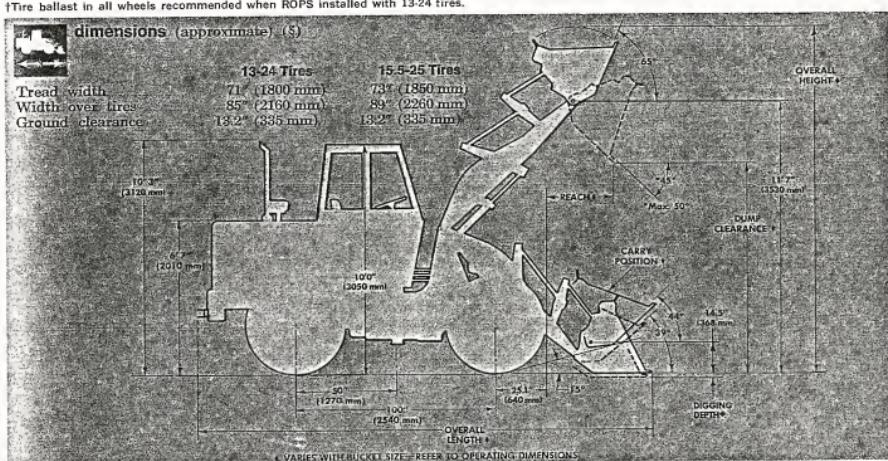
-1,780 lb. (-810 kg)

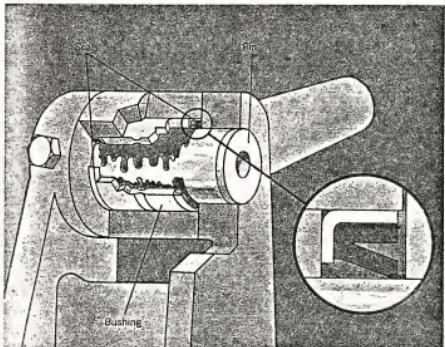
-770 lb. (-349 kg)

1,260 lb. (570 kg)

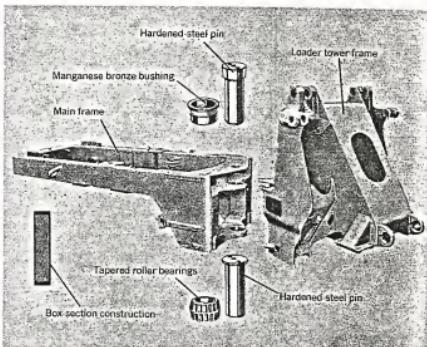
-750 lb. (-340 kg)

-200 lb. (-91 kg)

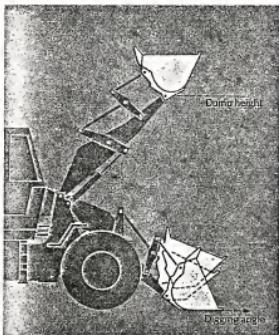




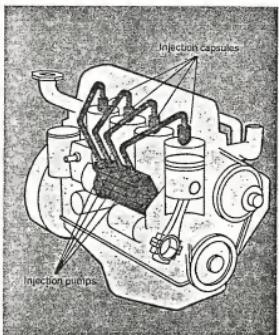
Sealed linkage reduces regular greasing of lift arm pivot points to once every 100 service meter units. (Lower bucket hinge pins need grease every 50 SMU.) Lip-type seals on each pin hold the lubricant in and keep out wear-causing grit. Pin and bushings last longer, and less time and money are spent for routine maintenance.



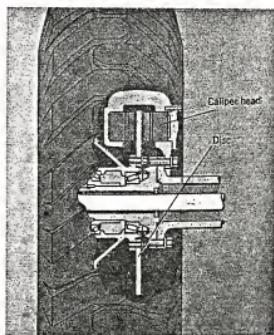
Box-section main frame and loader tower resist twisting and bending on rough ground. Two hardened-steel pins couple the front and rear frames. The bottom pin rides in double-tapered roller bearings; the upper, in a wide-contact manganese bronze bushing. Bucket lift arm pins and hydraulic cylinder mounting pins are supported on both ends by steel plates in the loader tower, rather than on a single side, as with cantilever mounting.



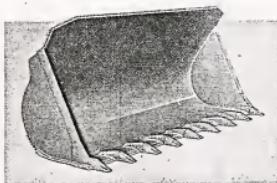
Automatic bucket controls let the operator concentrate on fast maneuvering. The lift lever automatically "holds," then kicks out to stop the hoisting action at a pre-set dump height. The tilt lever also holds when engaged, then kicks out when empty bucket returns to the desired digging angle. Both are adjustable and can be manually overridden.



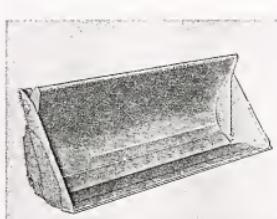
Cat 3304 Diesel Engine . . . with 425 cu. in. (7.0 litres) displacement . . . delivers reliable power to keep your job moving. The adjustment-free fuel system has individual fuel injection pumps and valves to meter fuel precisely for efficient performance. Cam-ground and tapered aluminum alloy pistons expand at operating temperatures to fit snugly in the cylinders for smooth, even power flow.



Four-wheel caliper disc brakes stop the 920 dependably and quickly. They're self-adjusting for wear . . . and self-cleaning in mud and grime to resist fading. Separate hydraulic circuits on front and rear axles insure two-wheel braking ability if one circuit is lost.



General Purpose Buckets are made from high-strength, wear-resistant steel plate and bracing, joined by 100% penetration welds. Forged corners, straight-through cutting edge, side plates, bottom replaceable wear plates and reinforced hinge guards are heat treated to last longer. Nine teeth with long or short tips are optional.



Multi-Purpose Bucket loads, bulldozes, strips top soil, cleans up debris, etc. 740 lb. (336 kg) counterweight recommended. Additional hydraulic valve required. Optional teeth aid digging.



Side Dump Bucket dumps forward or to the left. Reduces turning, aids close-quarter loading. 740 lb. (336 kg) counterweight recommended. Additional hydraulic valve required.



standard equipment

Alternator, 19 amp.
Electric starting.
Blower fan.
Torque converter.

Fuel priming pump.
Muffler.
Fenders.
Power shift transmission.
Hydraulically boosted brakes.

ROPS cab (U.S.A. only).
Adjustable seat.
Seat belt.
Front and rear working lights.
Stop and tail lights.

Dry-type air cleaner.
Warning horn.

Gauges and indicators:
Engine water temperature.
Hour meter.
Parking brake.

Ammeter.
Engine oil pressure.
Fuel pressure.
Torque converter oil temperature.
Hour meter.
Parking brake.

optional equipment



(with approximate installed weights)

Air conditioner/heater/defroster	290 lb. (132 kg)
Compressor only	50 lb. (23 kg)
Alternator, 50 amp	15 lb. (7 kg)
Buckets	
Bucket cutting edges (bolt-on) for	
General Purpose Buckets:	
Flat, reversible, with interchangeable ends	185 lb. (84 kg)
Half arrow	185 lb. (84 kg)
Bucket teeth (bolt-on), 8, for Multi-Purpose and General Purpose Buckets:	
Long tip, each	25 lb. (11 kg)
Short tip, each	12 lb. (5 kg)
Cab, ROPS, includes windshield washer and wiper (standard in U.S.A.)	
ROPS, sound-suppressed	840 lb. (381 kg)
ROPS, sound-suppressed	920 lb. (417 kg)
Canopy, ROPS	620 lb. (290 kg)
Clamp, top, for lumber fork	540 lb. (245 kg)
Coolant flow warning horn	5 lb. (2 kg)
Counterweight	740 lb. (336 kg)
Differential torque proportioning:	
Front axle	15 lb. (7 kg)
Front and rear axles	30 lb. (14 kg)
Drawbar, rear	32 lb. (15 kg)

Fan, reversible blade	14 lb. (6 kg)
Fork, lumber	1,160 lb. (530 kg)
Guard, power train	240 lb. (109 kg)
Heater, cab, includes defroster	120 lb. (54 kg)
Engine coolant	3 lb. (1 kg)
Hydraulic systems:	
For Multi-Purpose Bucket	115 lb. (52 kg)
For Side Dump Bucket or top clamp	85 lb. (39 kg)
Lighting system, 2 lights, for cab	5 lb. (2 kg)
Mirror, for cab, rear vision	12 lb. (5 kg)
Precleaner	15 lb. (7 kg)
Seat, suspension type, adjustable	30 lb. (14 kg)
Starting system, low temperature	65 lb. (29 kg)
Steering system, supplemental	91 lb. (41 kg)
Tire inflation kit	6 lb. (3 kg)
Tires	see Operating Specifications
Tool kit	18 lb. (8 kg)
Vandalism protection:	
Instrument panel guard	6 lb. (3 kg)
Cap locks for:	
Oil filler	3 lb. (1 kg)
Oil dipstick	4 lb. (2 kg)
Fuel tank	1 lb. (0.5 kg)
Radiator	4 lb. (2 kg)
Transmission	2 lb. (1 kg)

Materials and specifications are subject to change without notice.

CITY OF FORT WAYNE

DEPARTMENT OF PURCHASES

Number One Main St., Ft. Wayne, Ind. 46802

INVITATION

Quotations, subject to the conditions on the reverse hereof, are requested on the following list of materials, supplies, equipment or services, for the department as mentioned, with delivery to destination as shown below. Quotations shall include all charges for delivery, packing, etc. Address your reply as follows: "Dear Sirs,"

423-7037

Mail all replies and correspondence to: Attn of Aaron M. Gluck

DEPARTMENT OF PURCHASES

Room 940 Number One Main St., Ft. Wayne, Ind. 46802

REQUIRED FOR DELIVERY TO:

Department Street Department

or Division 1701 South Lafayette

Address Fort Wayne, Ind. 46803

Page 1 of 10

Ref. No. 930-G

Date June 6, 1980

Date wanted

Fund
Appropriation No.

RETURN ORIGINAL TO THE CITY—RETAIN DUPLICATE COPY FOR YOUR FILE

Closing

Time of Bids Thursday, June 26, 1980 at 11:00 A.M.

TAXES: THE CITY IS EXEMPT FROM FEDERAL EXCISE AND INDIANA STATE SALES TAX. THIS CITY'S INDIANA SALES TAX EXEMPTION CERTIFICATE NUMBER IS NO. 104-2. PRICES SHOULD NOT INCLUDE THESE TAXES. See "Instructions to Bidders" No. 10 on reverse hereof for details.

TAX EXEMPT (Unless otherwise indicated)

Quantity	Unit	Materials, Supplies, Equipment or Services	Unit Price	Total Amount
1		Front End Loader as per attached Specifications, or equivalent. New International Model 515 Questionnaire must be completed in full		\$34,680.00
—				

Affirmative Action: One File: Attached: Bid Bond required EX 5% Performance Bond EXSee Instructions Item No. 16 on reverse side hereof.

Terms % cash discount if paid within days from delivery and acceptance of goods or completion of services.

PROPOSAL OR BID

In compliance with the above invitation for bids and subject to all conditions thereto, the undersigned offers and agrees, if this bid be accepted within a reasonable time from date of closing, to furnish any or all of the items or render such services upon which bids are quoted, in accordance with the specifications applying and as the time and expense each item.

Delivery of any or all of the items or completion of services indicated shall be made within days from receipt of order as per proposal

IMPORTANT

As delivery may be a deciding factor in the award of an order, it is important that bidders furnish the information requested above.

Signature

Indiana Equipment Company, Inc.

Dorothy B. Kury Name of Company Vice Pres.

Address 414 W. Coliseum Blvd.

City Fort Wayne, IN

Date 6/26/80

THE FORD METER BOX COMPANY, INC.
P. O. BOX 443 WABASH, INDIANA 46992
219-563-3171

Indiana Equipment
Mr. Leland Stump

Bid Reference No. 930-C

They Bid on Item #15
L-B Tires. They can
furnish L-2 Tires as
asked for on Specifications

If we wish to go to the
L-2 Tires, deduct \$1260.00
from their Bid Price.

Gay Balles
June 24, 1980
12:20 P.M.

SPECIFICATIONS QUESTIONNAIR

Bidders Proposal - To Be Completed
By the Bidder

1. Engine: 4-cycle diesel, direct start, direct injection, naturally aspirated. Rated 1W horsepower - 102, flywheel kW horsepower - 95, bore & stroke 3.88 x 5.06, 6 cylinders, 358 cu. in. displacement, electrical system 24 volt. (The flywheel horsepower output of standard engine as installed in this vehicle with addition of fan, air cleaner and alternator.)
2. Torque Converter: Single stage, single phase type 2.85 to 1 stall ratio.
3. Transmission: Full power shift, countershaft type, constant mesh.
Meets required speeds in each gear.
4. Differentials: Conventional.
5. Axles: Heavy-duty type with inboard planetary final drive. Four wheel drive.
6. Steering: Articulation, right or left - 40 degrees. Turning radius outside of tires - 15' 4".
7. Brakes: Service - four wheel hydraulic disc brakes with separate axle by axle operation and warning indicator light and buzzer. Operator's choice braking, left pedal neutralizes transmission and applied brakes, right pedal applies brakes only. Parking - 10" drum type. Hand operated with warning light on dash.
8. Loader Linkage: Sealed pivot points with extended lubrication intervals.
9. Hydraulic System: Reservoir: Closed with pressure control and vacuum relief. Sight gauge and one 10 micron spin-on type filter. Pump: Gear type, driven from accessory drive. Main Hydraulic: Output at 2500 rpm and 3000 psi. Valve: Two spool. Relief valve pressure 3000 psi. Cylinders (double acting) hardened chrome plated piston rods, meeting all raise, lower, dump and roll back requirements. Bore and stroke of all hydraulic cylinders meet required specifications.
10. Hydraulic Controls: Boom positions: Raise, hold, down pressure and float. Bucket positions: Roll back, hold and dump.

11. Service Capacities: Cooling system - 9.0 gal. Lube systems:
Crankcase - 3.75 gal. Transmission - 4.5 gal. Differential & final
drive, front - 4.0 gal. Differential & final drive, rear - 4.0 gal.
Hydraulic system - 10.0 gal. Fuel tank - 35.0 gal.

12. Bucket Size: SAE Rated 2.0 cuibc yards, width 94". Static tipping load
straight - 12735 - w/ROPS, kg (lb) full turn - 10825. Basic operating
weight w/ROPS kg (lb.) No attachments included - 16710. Dump clearance,
max. height and 45 dump angle - 18' 10.5". Reach @ 7' cut edge clearance
and 45 dump angle - 4' 6". Reach at max. height and 45 dum angle 3' 5".
Overall length, bucket on ground - 18' 9.5". Overall length, bucket @
carry - 19'. Turning radius, outside corner of bucket - 16' 10".
Lifting capacity @ SAE carry, kg (lb.) 14010. Breakout force 13700.

13. Standard Equipment: Air cleaner, dry type with safety element;
adjustable bucket seat; access ladders, alternator - 40 amp; cartridge
type filters for engine oil, transmission, torque converter oil and
hydraulic oil; electric horn; engine compartment side panels; lights,
working and traveling, 2 front and 2 rear driving, 2 stop and tail;
master key disconnect; muffler; neutral safety start; ROPS - open with
seat belt; safety lock for loader and transmission controls and
vandalism protection.

14. Optional Attachments: Adjustable bucket leveler; back-up alarm;
bucket, multi-purpose; counterweight kit; hydraulic 3-spool valve
with front hydraulic; heater and defroster; rear wiper and washer;
ROPS cab, enclosed with tinted safety glass, front windshield wiper and
washer and turn signal with hazard switch.

15. Tires: 15.5 x 25 - 12 PR (L-3)

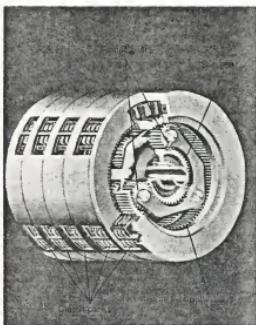
16. Tire Size: 12 PR

515

PAY[®] loader Specifications

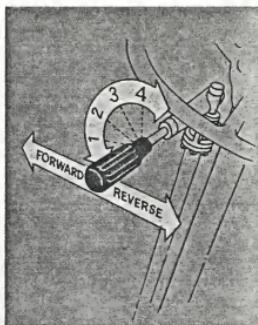


International



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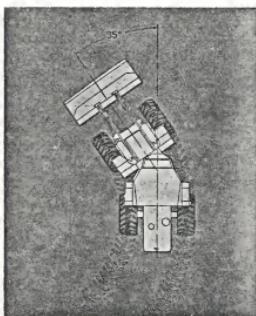
Planetary power shift transmission is designed for tough work . . . with big clutch packs. Hydraulic modulation cushions clutch engagement for full-power, on-the-go shifting. Planet gears spaced 120° apart spread out stresses for longer life. Oil cooling and lubrication reduce heat and wearing friction.



A single lever on the steering column controls both speed and direction. Rotate it to select four speeds forward and three in reverse . . . move it forward or back for directional change. It's simple, convenient and quick.



ROPS cab (standard in U.S.A.) offers operator protection, plus comfort and convenience. It gives excellent visibility, both front and rear, and includes windshield washer and wiper and seat belt. Optional sound suppression, suspension seat and Cat air conditioner/heater/defroster add to operator comfort and encourage maximum production.



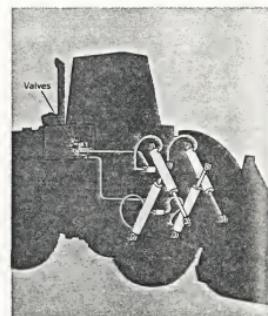
stop the . They're and self- to resist circuits on two-wheel is lost.

35° articulated steering provides quick, efficient maneuvering. The 920 can load, maneuver and dump in less than two machine lengths. With exact center-point articulation, the front and rear wheels always track, reducing tire wear and rolling resistance.



CAT PLUS — the most comprehensive, total product support system in the industry — comes with every 920 Wheel Loader. Your Caterpillar Dealer provides product application counseling and flexible finance planning before you buy, and these services after:

- Planned inspection programs.
- Preventive maintenance programs.
- Parts support.
- Parts Exchange Service.
- In-field service.
- Machine customizing services.
- Complete range of technical assistance.
- Personnel training for operators and mechanics.
- Cat Care seminars.



Sealed hydraulics keep out dirt and grime that can damage hydraulic components. There are no external breathers to let in contaminants.

515 PAYloader

- Articulation of 40° left or right
- Efficient "Z" bar loader linkage
- Bucket rap out
- Internal self adjusting wet disc brakes



ENGINE:

Make and model.....	International D-358
Type	4-cycle diesel, direct start, direct injection, naturally aspirated.
*Rated kW (horsepower)	76.1 (102)
**Flywheel kW (horsepower)	70.8 (95)
governed rpm	2500
Max. torque	
Nm	348
(lb.-ft.)	(257)
@ rpm	1800
Bore & Stroke, mm	98.4 x 128.5
(in.)	(3.88 x 5.06)
No. of cylinders.....	6
Displacement, litre	5.87
(cu. in.)	(358)
Electrical system	24 Volt
AMA HP U.S. tax purposes	36.0

*Rated horsepower output of standard engine complete with water pump, lubricating oil pump and fuel pump under SAE standard ambient temperature and barometric conditions of 99.2KPa (29.38" Hg.) and 29.4°C (85°F).

**Flywheel horsepower output of standard engine as installed in this vehicle with addition of fan, air cleaner and alternator.

TORQUE CONVERTER:

Single stage, single phase type 2.85 to 1 stall ratio.

TRANSMISSION:

Full power shift, countershaft type, constant mesh.

Speeds	1st	2nd	3rd
Fwd. km/h	7.89	15.45	37.01
(mph)	(0.49)	(0.96)	(23.0)

Rev. km/h	7.89	15.29	36.69
(mph)	(0.49)	(0.95)	(22.8)

DIFFERENTIALS:

Conventional.

AXLES:

Heavy-duty type with inboard planetary final drive. Four wheel drive.

Front axle fixed, rear axle oscillates a total of 24°. Vertical wheel travel of 371 mm (14.6").

STEERING:

Articulation, right or left

40°

Turning radius outside of tires

4.67 m (15'4")

BRAKES:

Service—Four wheel hydraulic disc brakes, standard. Inboard mounted wet disc with separate axle by axle operation and warning indicator light and buzzer. Operator's choice braking, left pedal neutralizes transmission and applies brakes, right pedal applies brakes only.

Parking—254 mm (10") drum type, mounted on pinion shaft. Hand operated with warning light on dash.

LOADER LINKAGE:

Sealed pivot points with extended lubrication intervals.

HYDRAULIC SYSTEM:

Single pump provides multiple operations by means of a pressure compensated steering valve.

Raise boom in 5.8 sec. Lower boom in 3.6 sec.

Roll back bucket in 1.4 sec. Dump bucket in 0.9 sec.

Reservoir: Closed with pressure control 0.21 MPa (30 psi) and vacuum relief. Sight gauge and one 10 micron spin-on type filter.

Pump: Gear type, driven from accessory drive.

Main Hyd.: Output at 2500 rpm and 20.7 MPa (3000 psi) 120 litre/min. (31.5 gpm).

Valve: Two spool.

Relief valve pressure 20.7 MPa (3000 psi).

Cylinders (double acting)—hardened chrome plated piston rods.

Boom—Bore and Stroke (2) mm

114 x 559 (4.5" x 22")

Bucket—Bore and Stroke (1) mm

114 x 429 (4.5" x 16.9")

Steering—Bore and Stroke (2) mm

76 x 411 (3.0" x 16.2")

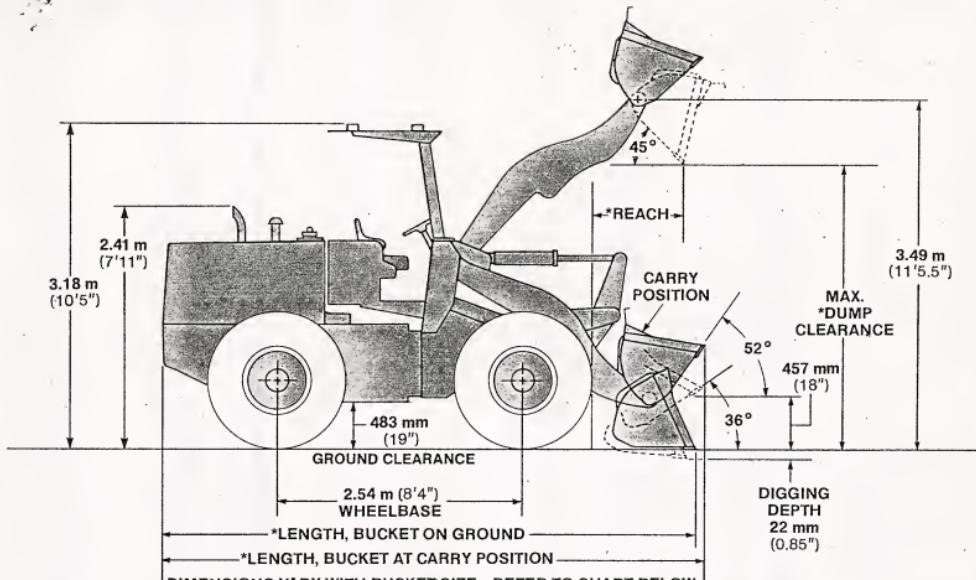
HYDRAULIC CONTROLS:

Boom Positions: Raise, hold, down pressure and float.

Bucket Positions: Roll back, hold and dump.

SERVICE CAPACITIES: (Approx.) litre (U.S. gal.)

Cooling system	34.0	(9.0)
Lube systems:		
Crankcase	14.0	(3.75)
Transmission	17.0	(4.5)
Differential & final drive, front	15.0	(4.0)
Differential & final drive, rear	15.0	(4.0)
Hydraulic system	38.0	(10.0)
Fuel Tank	132.5	(35.0)



DIMENSIONS VARY WITH BUCKET SIZE—REFER TO CHART BELOW
ABOVE DIMENSIONS WITH 18.4 x 24-10 PR (G-15) TIRES

BUCKET SIZE	General Purpose	General Purpose	General Purpose	Multi Purpose
SAE	Rated-m ³ (cu. yds.)	1.15 (1.5)	1.34 (1.75)	1.53 (2.0)
Bucket Capacity	Struck-m ³ (cu. yds.)	0.99 (1.3)	1.15 (1.5)	1.30 (1.7)
Width— mm	2388 (94")	2388 (94")	2388 (94")	2388 (94")
Max. Mat'l. Wt. Per kg/m ³ (lb/yd ³)	Excavating	1780 (3000)	1525 (2570)	1335 (2250)
Stockpile	2136 (3600)	1830 (3085)	1602 (2700)	—
**Static Tipping Load w/ROPS, kg (lb.)	Straight	5840 (12875)	5813 (12815)	5777 (12735)
Full turn	4985 (10945)	4940 (10890)	4911 (10825)	4202 (9265)
**Basic Operating Wt. w/ROPS, kg (lb.) No attachments included		7466 (16460)	7534 (16610)	7580 (16710)
**Dump Clearance, Max. Height and 45° Dump Angle— m	2.82 (9'3")	2.76 (9'0.5")	2.71 (8'10.5")	2.62 (8'7")
*Reach @ 2.13m (7') Cut Edge Clearance and 45° Dump Angle— m	1.32 (4'4")	1.36 (4'5.5")	1.37 (4'6")	1.40 (4'7")
*Reach at Max. Height and 45° Dump Angle— m	0.93 (3'0.5")	0.98 (3'2.5")	1.04 (3'5")	1.04 (3'5")
*Overall Length, Bucket on Ground— m	5.56 (18'3")	5.65 (18'6.5")	5.73 (18'9.5")	5.72 (18'9")
*Overall Length, Bucket @ Carry— m	5.69 (18'8")	5.74 (18'10")	5.79 (19'0")	5.82 (19'1")
Turning Radius, Outside Corner of Bucket— m	5.08 (16'8")	5.11 (16'9")	5.13 (16'10")	5.16 (16'11")
Lifting Capacity @ SAE Carry, kg (lb.)	6541 (14420)	6457 (14235)	6355 (14010)	5910 (13030)
Breakout Force, N (lb.)	76061 (17100)	67610 (15200)	60938 (13700)	59381 (13350)

*Increases or decreases according to tire size—Refer to Machine Dimensions—All dimensions, weights and performance values per SAE J-73c where applicable.

**Machine stability and weight can be increased for stockpile by adding larger tires, ballast or counterweights; proper selection of optional equipment for optimum machine performance is dependent upon material weight and operating conditions.

515 PAY.[®]loader

STANDARD EQUIPMENT:

Air cleaner, dry type
w/safety element
Adjustable bucket seat
Access ladders
Alternator—40 amp
Cartridge-type filters for
engine oil, transmission,
torque converter
oil and hydraulic oil
Electric horn
Engine compartment side
panels

Lights, working and
traveling, 2 front and
2 rear driving, 2 stop
and tail
Master key disconnect
Muffler
Neutral safety start
ROPS—open (SAE J1040)
w/seat belt (SAE J386)
Safety lock for loader and
transmission controls
Vandalism protection

OPTIONAL ATTACHMENTS:

Adjustable boom kickout
Adjustable bucket leveler
Back-up alarm
Bucket, multi-purpose
Bucket teeth (bolt on)
Cold weather starting aid
Counterweight kit
Fenders
Hydraulic 3 spool valve
w/front hydraulics
Heater and defroster
No-spin differential (Front)

Rear wiper and washer
ROPS cab, enclosed with
tinted safety glass, front
windshield wiper and
washer
Auxiliary ground driven steering
Sound suppression
Tachometer
Turn signal w/hazard switch
West Coast outside mirror w/convex
lower section right or left

GAUGES:

Engine coolant temperature, fuel, hourmeter, torque
converter oil temperature and voltmeter.

Warning Lights: Engine coolant temperature, engine
oil pressure and torque converter oil temperature.
Parking brake light.

TIRES, Ballast and Counterweight—kg. (lb.)	Change in Operating Weight		Change in Full Turn Tipping Load	
	Tires Only	4 Tires w/75% Ca Cl ₂ in Rear Only	Tires Only	4 Tires w/75% Ca Cl ₂ in Rear Only
18.4 x 24—10 PR (G-15) std.	0	+690 (1515)	0	+865 (1900)
15.5 x 25—12 PR (L-2)	+85 (185)	+510 (1125)	+55 (115)	+590 (1295)
15.5 x 25—12 PR (L-3)	+132 (290)	+558 (1230)	+82 (180)	+615 (1355)
17.5 x 25—12 PR (L-2)	+168 (370)	+721 (1590)	+105 (230)	+796 (1755)
17.5 x 25—12 PR (L-3)	+227 (500)	+780 (1720)	+143 (315)	+835 (1840)
Rear Counterweight	+295 (650)		+505 (1115)	
ROPS Cab add	+200 (435)		+91 (200)	

*Weights reflect an average of all tire brands. Ballast indicated for rear tires only.

MACHINE DIMENSIONS, Approx.

Tire Size	10 PR	12 PR	12 PR	12 PR	12 PR
	18.4 x 24 (G-15)	15.5 x 25 (L-2)	15.5 x 25 (L-3)	17.5 x 25 (L-2)	17.5 x 25 (L-3)
Tread—m (in)	1.82 (5'11.7")	1.82 (5'11.7")	1.82 (5'11.7")	1.82 (5'11.7")	1.82 (5'11.7")
Width over Tires—m (in)	2.30 (7'6.7")	2.22 (7'3.2")	2.22 (7'3.2")	2.33 (7'7.7")	2.33 (7'7.7")
Change in Vert. Dimen.—mm (in)	0	-51 (2")	-51 (2")	-25.4 (1")	-24.5 (1")
Change in Reach—mm (in)	0	+51 (2")	+51 (2")	+25.4 (1")	+25.4 (1")

Specifications subject to change without notice. Illustrations may include optional equipment and accessories and may not include all standard equipment.
PAY is a registered trademark of International Harvester Company designating a family of IH products.



PAYLINE GROUP
An Operating Group of International Harvester

INDIANA EQUIPMENT CO., INC.

Indianapolis, Indiana 46268 • 8410 Zionsville Road • Phone: (317) 299-8410
Ft. Wayne, Indiana 46801 • 414 W. Coliseum Blvd. • Phone: (219) 482-9517

Call Toll Free 1-800-382-3948

CITY OF FORT WAYNE

DEPARTMENT OF PURCHASES
Number One Main St., Ft. Wayne, Ind. 46802

INVITATION

Quotations, subject to the conditions on the reverse side, are requested on the following list of materials, supplies, equipment or services, for the department as mentioned, with delivery to destination as shown below. Quotations shall include all charges for delivery, packing, etc. Address your reply to the Purchasing Agent.

423-7037

*Mail all replies and correspondence, etc., to Attn. of Aaron M. Gluck

DEPARTMENT OF PURCHASES

Room 940 Number One Main St., Ft. Wayne, Ind. 46802

ADDRESSES
REQUIRED FOR DELIVERY TO:

Department or Division Street Department

1701 South Lafayette
Fort Wayne, Ind. 46803

Page 1 of 10

Ref. No. 930-G

Date June 6, 1980

Date wanted _____

Fund
Appropriation No. _____

RETURN ORIGINAL TO THE CITY — RETAIN DUPLICATE COPY FOR YOUR FILE

Closing

Time of Bids Thursday, June 26, 1980 at 11:00 A.M.

TAXES: THE CITY IS EXEMPT FROM FEDERAL EXCISE AND INDIANA STATE SALES TAX. THE CITY'S INDIANA SALES TAX EXEMPTION CERTIFICATE NUMBER IS NO. 14524. PRICES SHOULD NOT INCLUDE THESE TAXES. See Instructions to Bidders No. 10 on reverse side for details.

TAX EXEMPT (Unless otherwise indicated)

Quantity	Unit	Materials, Supplies, Equipment or Services	Unit Price	Total Amount
1		1980 Front End Loader as per Trojan Model 1500 attached Specifications, or equivalent. Questionnaire must be completed in full		\$43,990.00

Affirmative Action: One File Attached: Bid Bond required 5%Performance Bond

See Instructions Item No. 15 on reverse side hereof.

Terms Net 1% cash discount if paid within 30 days from delivery and acceptance of goods or completion of services.

PROPOSAL OR BID

In compliance with the above invitation for bids and subject to all conditions thereof, the undersigned offers and agrees, if this bid be accepted within a reasonable time from date of closing, to furnish any or all of the items or render such services upon which prices are quoted, in accordance with the specifications applying and at the prices and opposite each item.

Delivery of any or all of the items or completion of services indicated shall be made within days from receipt of order.

IMPORTANT

As delivery may be a deciding factor in the award of an order, it is important that bidders furnish the information requested above.

Signature

Korff Bros. Inc.

By Barry J. Williams Vice President

Address 435 Murray Street

City Fort Wayne, Indiana 46803 Date June 25, 1980

SPECIFICATIONS QUESTIONNAIR

Bidders Proposal - To Be Completed
By the Bidder

1. Engine: GM Model 3-53 N, 85 Flywheel H.P., 3 Cylinder, Bore & Stroke
3 7/8" X 4 1/2"
2. Torque Converter: Twin Turbine Torque Converter with 5.1:1 Ratio
3. Transmission: Singel Lever Power Shift Planetary Transmission with Four Speed Forward, 2 Reverse
4. Differentials: Hypoid Ring Gear and Pinion, High Traction Torque Proportioning
5. Axles: Outboard Planetary, Rear Axle Oscilation $\pm 12^\circ$
6. Steering: 35° Each Direction, Full Power Steering
7. Brakes: Four Wheel Disc, Power Boosted Hydraulic
8. Loader Linkage:
9. Hydraulic System: Double Pump, Closed and Pressurized, 25 1/2 Gallon Reservoir, 10 Micron Filter, Double Acting Hardened Chrome Plated Rods.
10. Hydraulic Controls: Hoist: Raise, Hold, Down Pressure, Float, Bucket: Roll, Back Hold, Dump

11. Service Capacities: Cooling: 25 Qts., Crank Case: 12 Quarts,

Transmission: 16 Quarts, Differentials F & R: 22 Pts. Hydraulic

System: 25 1/2 Gallon, Fuel Tank: 38 Gallon

12. Bucket Size: 1 1/2 Yd. Multi Purpose-Bucket

13. Standard Equipment: Clutch Cut Out,

Hourmeter, Ammeter, Engine Temperature Gauge, Oil Pressure Gauge, Trans.

Clutch Pressure Gauge, Adj. Bucket Seat, ROPS Cab, Front Wiper, Back Up

Alarm, Front & Rear Work Lights, Draw Bar, Engine Side Panels, Rearview

Mirrors, Seat Belt.

14. Optional Attachments: Vandalism Kit, Bucket Leveler, Rear Wiper,

Front & Rear Washers, Turn Signals, Counterweight

15. Tires: Ballast not Required in Tires, Counterweight

16. Tire Size: 15.5 X 25 12 PR 1.2

ction Guide

Size	Rock	Multi Purpose	Side Dump	Coal Rehandling		
				1500 (890)	1875 (1112)	2250 (1334)
3000 (1779)	2700 (1601)	2700 (1601)		—	—	—
—	1½ (1.1)	1½ (1.1)		—	—	—
—	2 (1.5)	2 (1.5)		—	—	—
—	2½ (1.9)	2½ (1.9)		—	—	—
—	3 ¼ (2.5)	3 ¼ (2.5)		—	—	—
4 (3.1)	3 ¾ (2.8)	3 ¾ (2.8)	9 (6.9)	7 (5.3)	6 (4.5)	
5 ½ (4.2)	—	—	12 (9.2)	10 (7.7)	8 (6.1)	
7 (5.4)	—	—	15 (11.5)	12 (9.2)	10 (7.7)	

SIDE DUMP:

The side dump bucket is usually applied for a specific customer problem — such as, where a confined area limits the ability of the machine to manoeuvre sufficiently. There is capability to use the side dump bucket in the normal manner where the area is not so confined.



MULTI-PURPOSE:

Just as its name implies, a multi-purpose bucket has many functions. The main uses, other than for moving material as a general purpose bucket, are as a clam, skid shovel, or a dozer.



LIGHT MATERIAL:

Used for material weight up to 2400 lb. per cu. yd. (1423kg/m³)



COAL REHANDLING:

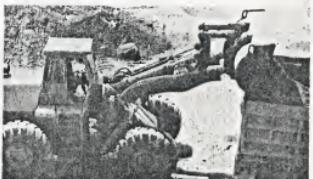
Available in sizes to suit material weight ranging from 1500-2250 lbs. (890-1334 kg/m³)



TROJAN



TRO-JAN
CONSTRUCTION EQUIPMENT



TROJAN

CONSTRUCTION EQUIPMENT

Seven Models with Bucket Capacities 1 1/4 - 8 1/2 cu. yd. (1.2-6.5 m ³)		Buckets cu. yds. (m ³)		Bucket Width		Dump Clearance @full height, 45° dump angle		Reach @ full height 45° dump angle		Breakout Force		Tipping Load (straight)		Tipping Load (full turn) SAE rated		Operating Weight lbs/kg
	*1 1/4, 2, 2 1/4, 1 1/2 (1.3, 1.5, 1, 7, 1.2)	8' (2438 mm)	9' (2743 mm)	2' 9" (838 mm)	16,790 lbs. (7616 kg)	12,465 lbs. (5654 kg)	11,343 lbs. (5145 kg)	16,560 lbs. (7512 kg)								
	*2 1/4, 2 1/2, 3, 2 (1.7, 1.9, 2.3, 1.5)	8' (2438 mm)	9' 1" (2769 mm)	3' (914 mm)	20,535 lbs. (9315 kg)	16,325 lbs. (7405 kg)	14,856 lbs. (6739 kg)	20,300 lbs. (9208 kg)								
	*3, 3 1/2, 4, 2 1/2 (2.3, 2.7, 3.1, 1.9)	8' 4" (2540 mm)	9' 3" (2819 mm)	3' 6" (1067 mm)	22,800 lbs. (10342 kg)	21,070 lbs. (9557 kg)	18,331 lbs. (8315 kg)	28,445 lbs. (12903 kg)								
	*4, 3 1/2, 4 1/2, 5 (3.0, 2.7, 3.4, 3.8)	9' 10" (2997 mm)	10' 2" (3099 mm)	3' 4" (1016 mm)	36,189 lbs. (16415 kg)	28,651 lbs. (12996 kg)	24,927 lbs. (11307 kg)	37,090 lbs. (16824 kg)								
	*4 1/2, 4, 5, 5 1/2 (3.4, 3.1, 3.8, 4.2)	9' 9" (2972 mm)	10' 4" (3150 mm)	3' 6" (1066 mm)	38,389 lbs. (17414 kg)	30,634 lbs. (13896 kg)	27,044 lbs. (12268 kg)	40,891 lbs. (18549 kg)								
	*6, 5 1/2, 7, 8 (4.5, 4.2, 5.3, 6.1)	11' 7" (3531 mm)	10' 9" (3276 mm)	4' 7" (1499 mm)	49,050 lbs. (22249 kg)	44,405 lbs. (20142 kg)	40,408 lbs. (18329 kg)	58,874 lbs. (26837 kg)								
	*7 1/2, 7, 6 1/2, 8 1/2 (5.7, 5.4, 5.0, 6.5)	11' 11" (3632 mm)	11' 7" (3530 mm)	4' 9" (1448 mm)	59,000 lbs. (26762 kg)	58,757 lbs. (26652 kg)	53,469 lbs. (24253 kg)	78,472 lbs. (35594 kg)								

*Information shown based on first bucket indicated.

Engine	Transmission	Brakes	**Standard Tires	Overall Length	Width over Tires	Height to Top of Cab	Engines 82-450 hp (67-336 kw) with matched power trains
GM 3-53/98 hp (73 kw) Perkins 4.248/82 hp (61 kw)	Full power shift, 4 speeds forward, 2 reverse	Four wheel disc	15.5 x 25 12PR (L-2)	18' 11" (5766 mm)	7' 1 1/2" (2172 mm)	10' 1" (3073 mm)	 1500
GM 4-53/136 hp (102 kw) Perkins 6.354/130 hp (97 kw)	Full power shift, 4 speeds forward, 2 reverse	Four wheel disc	17.5 x 25 12PR (L-2)	21.5" (6528 mm)	7' 11" (2413 mm)	10' 6" (3200 mm)	 1900
Cummins V556/200 hp (149 kw) GM 4-71N/157 hp (117 kw)	Full power shift, 4 speeds forward, ***2 reverse	Four wheel disc	20.5 x 25 (12PR (L-3))	23' 4" (7112 mm)	8' 0" (2438 mm)	11' 1" (3378 mm)	 2000
GM 6V-71/203 hp (151 kw)	Full power shift, 4 speeds forward and reverse	Four wheel disc	23.5 x 25 12PR (L-3)	24' 8" (7518 mm)	9' 5" (2870 mm)	11' 7" (3531 mm)	 2500
Cummins V903/255 hp (190 kw) GM 6V-71N/236 hp (176 kw)	Full power shift 4 speeds forward and reverse	Four wheel disc	23.5 x 25 16PR (L-2)	24' 5" (7442 mm)	9' 5" (2870 mm)	11' 7" (3531 mm)	 3000
GM 8V-92/320 hp (239 kw) Cummins NT855/310 hp (285 kw)	Full power shift, 4 speeds forward and reverse	Four wheel full air	26.5 x 25 20PR (L-3)	28' 10" (8788 mm)	10' 10" (3302 mm)	12' 1" (3683 mm)	 5500
Cummins KT1150/450 hp (336 kw) GM 8V-92/430 hp (321 kw)	Full power shift 4 speeds forward and reverse	Four wheel full air	29.5 x 29 22PR (L-3)	30' 2" (9195 mm)	11' 5" (3480 mm)	12' 8" (3861 mm)	 7500
*Meets or exceeds SAE J237				**Options Available			

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KORTE BROS. INC.
 CONSTRUCTION & INDUSTRIAL EQUIPMENT
 Lafayette at Murray Ss. 10837 E. 42nd St.
 Phone, (219) 745-4141, Telex (317) 545-1378
 Fort Wayne, Ind. 46803 Indianapolis, Ind. 46221
 8516 Baumgart Rd.
 Phone (812) 867-6463
 Evansville, Ind. 47710

This brochure provides an overview of the current Trojan equipment line with short form specifications, for more complete information the individual model specification sheets should be checked.

The manufacturer reserves the right to make changes at anytime without incurring any obligation to make such changes on machines manufactured previously.

TROJAN INDUSTRIES INC.

TROJAN CIRCLE

BATAVIA, N.Y. 14020

TELEPHONE: (716) 343-4202

TELEX: 97-8296

CABLE: TROJTRAC

Bucket Style	Excavator	General Purpose	Material Handling	Light Material	General Purpose Low Prof
Material Weight lb. per cu. yd. (kg. per m ³)	3300 (1957)	3000 (1779)	2700 (1601)	2400 (1423)	3000 (1779)
1500C	1½ (7.1)	1¾ (7.3)	2 (7.5)	2¼ (7.7)	— —
1900C	2 (7.5)	2¼ (7.7)	2½ (7.9)	3 (2.3)	— —
2000C	2½ (7.9)	3 (2.3)	3½ (2.7)	4 (3.1)	3 (2.2)
2500C	3½ (2.7)	4 (3.1)	4½ (3.6)	5 (3.8)	4 (3.1)
3000C	4 (3.1)	4½ (3.5)	5 (3.9)	5½ (4.2)	4½ (3.5)
5500C	6½ (4.2)	6 (4.6)	7 (5.3)	8 (6.1)	6 (4.5)
7500C	6½ (5.0)	7½ (5.7)	8½ (6.6)	8½ (6.5)	7½ (5.7)

SAE Bucket heaped capacity — cu. yd. (m³).**ROCK BUCKETS:**

Straight Edge

— Used in loose shot rock that loads easily and penetration into the pile is no problem.



Modified "V":

— Used in the most severe rock applications where maximum penetration into the pile is required.

**EXCAVATOR BUCKET:**

Used in heavy duty loading and stripping where heavier than normal material may be encountered.

**GENERAL PURPOSE:**

Used in normal bank run digging, stripping and loading operations with materials of average density.

**LOW PROFILE:**

Designed primarily to achieve maximum bucket load in a loose stockpile loading operation.



Wheel Loader

1500

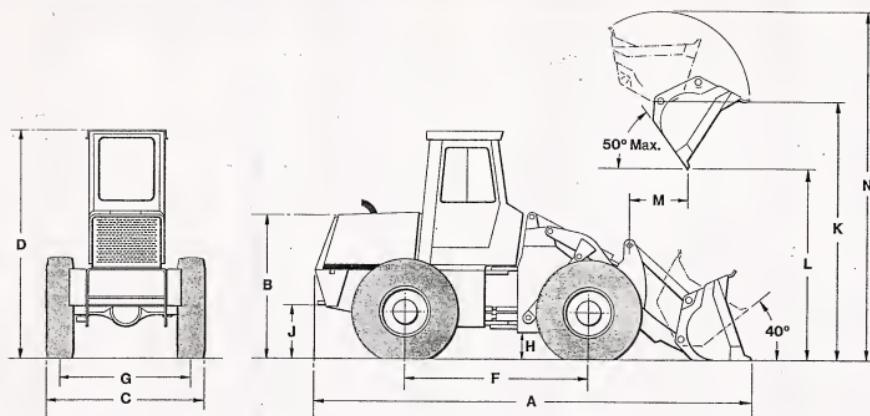
TROJAN

CONSTRUCTION EQUIPMENT



Loader as illustrated above is equipped with options.

- 98 h.p. (73 kw) maximum
- Full power steering
- Four speed, smooth power shift transmission
- Bucket capacity range $1\frac{1}{2}$ cu. yd. — $2\frac{1}{4}$ cu. yd. (1.1 — 1.7 m³)
- Four wheel disc brakes



B = 79" (2007 mm)
 D = 121" (3073 mm)
 F = 101" (2565 mm)
 J = 33.5" (851 mm)
 K = 136.5" (3467 mm)

Dimensions

G: Tread	13:00 x 24(G-2)	14:00 x 24(G-2)	15:5 x 25(L-2)
C: Width over tires	5'8" (1727 mm)	5'8" (1727 mm)	5'9" (1753 mm)
Change in vertical dimensions	7'0" (2134 mm)	7'1" (2159 mm)	7'1 1/2" (2172 mm)
Change in reach	+1/2" (13 mm)	+2" (51 mm)	-1/2" (13 mm)
H: Ground clearance	0"	-1 1/2" (38 mm)	0"
	1'1/2" (381 mm)	1'2" (356 mm)	1" (305 mm)

Operating Specifications

Capacity cu. yd. (m ³)	1 1/4 (1.3)	2 (1.5)	2 1/4 (1.7)	1 1/2 (1.1)	1 1/2 (1.1)
Bucket type	General Purpose	Material Handling	Light Material	Excavator	Multiple Purpose
SAE Heaped cu. yd. struck (m ³)	1.75 (1.3) 1.52 (1.2)	2.01 (1.5) 1.68 (1.3)	2.29 (1.8) 1.99 (1.5)	1.53 (1.2) 1.32 (1.0)	1.51 (1.2) 1.30 (1.0)
Cutting edge type and width	Straight 96" (2438 mm)	Straight 96" (2438 mm)	Straight 96" (2438 mm)	Straight 86" (2184 mm)	Straight 96" (2438 mm)
L: Dump clearance at full height 50° dump angle	8'10" (2692 mm)	8'10" (2692 mm)	8'5" (2565 mm)	8'10" (2692 mm)	
M: Reach at full height 50° dump angle	2'7" (787 mm)	2'7" (787 mm)	2'10" (864 mm)	2'7" (787 mm)	
Dump clearance at full height 45° dump angle	9'0" (2743 mm)	9'0" (2743 mm)	8'7" (2616 mm)	9'0" (2743 mm)	9'0" (2743 mm)
Reach at full height 45° dump angle	2'9" (838 mm)	2'9" (838 mm)	3'1" (940 mm)	2'9" (838 mm)	2'9" (838 mm)
Reach at 7° dump clearance 45° dump angle	4'5" (1346 mm)	4'5" (1346 mm)	4'6" (1372 mm)	4'5" (1346 mm)	4'5" (1346 mm)
A: Overall length bucket @ SAE carry	18'11" (5766 mm)	18'11" (5766 mm)	19'5" (5918 mm)	18'11" (5766 mm)	18'10" (5740 mm)
N: Overall height bucket rollback	15'2" (4263 mm)	15'4" (4674 mm)	15'6" (4724 mm)	15'2" (4623 mm)	14'7" (4445 mm)
@ Outside corner bucket turning radius SAE carry	18'5" (5613 mm)	18'5" (5613 mm)	18'7" (5664 mm)	17'11" (5461 mm)	18'4" (5588 mm)
Breakout force	16,790 lbs. (7616 kg)	16,790 lbs. (7616 kg)	14,189 lbs. (6436 kg)	16,790 lbs. (7616 kg)	15,402 lbs. (6996 kg)
SAE rated tipping load full turn (35°)	11,343 lbs. (5145 kg)	11,307 lbs. (5129 kg)	11,202 lbs. (5081 kg)	11,434 lbs. (5186 kg)	9,505 lbs. (4312 kg)
*Tipping load (straight) (SAE)	12,465 lbs. (5654 kg)	12,425 lbs. (5636 kg)	12,310 lbs. (5584 kg)	12,565 lbs. (5700 kg)	10,445 lbs. (4738 kg)
*Operating weight	16,580 lbs. (7512 kg)	16,590 lbs. (7525 kg)	16,720 lbs. (7584 kg)	16,471 lbs. (7471 kg)	17,331 lbs. (7961 kg)
Material weight lbs./cu. yd.	3000 lbs. (1361 kg)	2700 lbs. (1225 kg)	2400 lbs. (1089 kg)	3300 lbs. (1497 kg)	3300 lbs. (1497 kg)

Includes standard equipment, full fuel, operator, 15.5 x 25-12PR tires (L-2) 480# (217 kg) counterweight.

Engines

Make/Type	GM Diesel	Perkins Diesel
Model	3-53N50	4.248
*Max. hp	98 (73 kw)	82 (61 kw)
*Flywheel hp	85 (63 kw)	75 (56 kw)
Governed RPM	2600	2500
Max. torque	205 lb/ft @ 1800	202 lb/ft @ 1400
	(28 kg/m @ 1800)	(28 kg/m @ 1400)
Bore x Stroke	37/8" x 41/2"	4" x 5"
	(98 mm x 114 mm)	(102 mm x 127 mm)
No. of cylinders	3	4
Displacement	159 cu. ins. (2.6 litres)	248 cu. ins. (4 litres)
Cooling system	25 qts. (24 litres)	27 qts. (26 litres)
Fuel tank capacity	30 gals. (114 litres)	30 gals. (114 litres)
Electrical system, volts	12	12
Alternator amps -	55	55

*Max. hp of basic engine under SAE conditions, 85°F. at barometric pressure of 29.38" (746 mm)

**Net usable hp at engine flywheel under standard conditions with fan, alternator, water pump, lube oil pump, fuel pump, compressor and air cleaner.

Transmission and torque converter

Single lever power shift planetary transmission with four speed forward, two reverse. Automatic shifting within low and high range. Twin turbine torque converter with 5.1:1 ratio for both GM and Perkins engines.

Travel speeds

	Forward GM	Perkins
1st	2.8 mph (4.5 km/hr)	2.6 mph (4.2 km/hr)
2nd	7.0 mph (11.3 km/hr)	6.7 mph (10.8 km/hr)
3rd	10.7 mph (17.2 km/hr)	10.3 mph (16.6 km/hr)
4th	25.0 mph (40.2 km/hr)	24.3 mph (39.1 km/hr)

Reverse

1st	3.8 mph (6.1 km/hr)	3.5 mph (5.6 km/hr)
2nd	9.5 mph (15.3 km/hr)	9.1 mph (14.6 km/hr)

Axles

Planetary type — Hypoid ring gear and pinion; high traction torque proportioning differentials.

Rear axle oscillates $\pm 12^\circ$. Rear wheel lift or drop 14 $1/2$ " (368 mm).

Brakes

Conform to SAE J237

Service: Four-wheel disc, power boosted hydraulic
Parking / Emergency: Mechanical on transmission.

Articulated steering — 35°each direction

Full power steering.

Hydraulic system

Consists of double pump. Closed and pressurized. Relief valve 2500 PSI (17250 kPa).

Main pump

Gear type, 34 GPM (129 litres/min.) @ 2500 Engine RPM @ 1000 PSI (6895 kPa).

Hoist cylinders

2 — 4 $3/4$ " (121 mm) diameter by 24 $1/4$ " (616 mm) stroke. Chrome plated rod.

Bucket cylinder

1 — 4 $3/4$ " (121 mm) diameter by 28 $3/4$ " (730 mm) stroke. Chrome plated rod.

Valve

Double-acting with float and built-in relief valve. Spring return to neutral on bucket spool. Two position detent on lift spool.

Reservoir

Electric welded with hand hole for cleaning. 25 $1/2$ gallon (97 litre) capacity.

Hydraulic filters

10 micron, full return flow filtering, wire reinforced both sides.

Hydraulic speeds (seconds)

Time required to raise to full height: 6.2

Time required to lower from full height: 4.5

Time required to dump: 2.9

Time required to tip back: .9

Steering pump

Gear type, 20 GPM (76 litres/min.) @ 2500 Engine RPM @ 1000 PSI (6895 kPa).

Steering cylinders

2 — 3" (76 mm) diameter by 12" (305 mm) stroke. Chrome plated rod.

Optional equipment

Suction fan, canopy ROPS, rear windshield wiper, fenders, heater, defroster, hydraulic adaptor kit, bucket teeth, multi-purpose bucket, fork lift attachment, side dump bucket, automatic hoist kickout, automatic bucket leveler, directional signals with hazard switch, bosch seat, no-spin differential on front axle, American coupler system, quick reverse to forward shift, right side door.

Standard equipment

Clutch cutout	Engine oil filter	*Slow moving vehicle emblem
Full power brakes	Torque converter oil filter	Windshield wiper
Hydraulic power steering	Transmission oil filter	(front)
3-spool hydraulic valve	Steering hydraulic filter	*Rearview mirrors
Hourmeter	Dry type air cleaner	Horn
Ammeter	*EROPS cab	Ether starting kit
Engine temperature gauge	*Back up alarm	Engine side panels
Engine oil pressure gauge	Spark arresting muffler	Alternator
Torque converter temperature gauge	Adjustable bucket seat	Pusher fan
Transmission clutch pressure gauge	*Seat belt	Draw bar
		Dome lights
		Head lights
		Stop lights
		Rear work lights

*Optional outside U.S.

In accordance with our policy of making constant improvement, the above specifications are subject to change without notice.

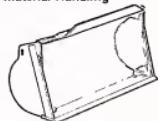
1500 Loader

Additional tipping load and operating weight selections

Options	Change in full Turn tipping load		Change in Operating weight	
	lb.	kg	lb.	kg
14.00 — 24 8PR (G-2)	-229	-(104)	-348	-(148)
14.00 — 24 12PR (G-2)	-147	-(66)	-224	-(102)
14.00 — 24 8PR (G-2) with 75% CaCl ₂	+1014	+(460)	+662	+(282)
14.00 — 24 12PR (G-2) with 75% CaCl ₂	+1131	+(513)	+746	+(338)
15.5 — 25 12PR (L-2) with 75% CaCl ₂	+1239	+(562)	+940	+(426)
Fenders	+150	+(68)	+280	+(126)
Canopy ROPS	-305	-(138)	-325	-(147)
Counterweight	-869	-(394)	-480	-(218)
*EROPS	-883	-(400)	-837	-(379)

*Optional outside U.S.

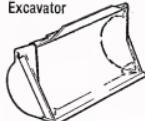
Material Handling



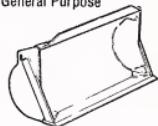
Light Material



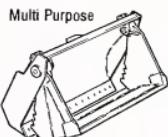
Excavator



General Purpose



Multi Purpose



TROJAN INDUSTRIES INC.

TROJAN CIRCLE
BATAVIA, NY 14020

The manufacturer reserves the right to make changes or add improvements at any time without incurring any obligation to make such changes on machines manufactured previously.

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KORTEN ERICKSON INC.
CONTRACT EQUIPMENT
Lafayette, Indiana 47901
Phone (812) 463-1378
Full Service Distributor
1975-1980
KORTEN ERICKSON INC.
Evansville, Ind. 47710
Phone (812) 463-6451

TROJAN



WEISS MACHINERY CORPORATION

HOME OFFICE

P.O. BOX 534
DALEVILLE, IN 47334

(Local) 317-378-3396
WATS 1-800-382-3545

VAN WERT, OHIO

P.O. BOX 226
VAN WERT, OH 45891

(Local) 419-238-3222
WATS 1-800-472-0611

FT. WAYNE DIVISION

P.O. BOX 15249
FT. WAYNE, IN 46885

(Local) 219-484-0781
WATS 1-800-552-1902

MARTINSVILLE, INDIANA

30 ROB HILL RD.
MARTINSVILLE, IN 46151

317-831-3881
WATS 1-800-382-4354

city of Fort Wayne

To Whom it may concern

Holt Equipment Co.

1776 So. Cedar ST.

Holt, Michigan 48842 is bidding the front end loader
in behalf of Weiss Machinery Corp. to Obtain the best possible
price as they have the unit in inventory.

Service and parts under warranty can be obtained at
Weiss Machinery Corp.
15249 Industrial Road
Fort Wayne, Indiana
Factory warranty- 1 year
Factory warranty- engine only- 2 years

Weiss Machinery Corp.

Holt Equipment Co.

CITY OF FORT WAYNE

DEPARTMENT OF PURCHASES

Number One Main St., Ft. Wayne, Ind. 46802

INVITATION

Quotations, subject to the conditions on the reverse hereof, are recommended on the following list of materials, supplies, equipment or services, for the department as mentioned, with delivery to location as above shown. Quotations shall include all charges for delivery, packing, etc. Address your report to "Quotations desired" 423-7037

*Mail all replies and correspondence, via to Attn. of Aaron M. Gluck DEPARTMENT OF PURCHASES

Room 940 Number One Main St., Ft. Wayne, Ind. 46802

REQUIRED FOR DELIVERY TO:

Department or Division Street Department
1701 South Lafayette
Fort Wayne, Ind. 46803

Fund Appropriation No.

RETURN ORIGINAL TO THE CITY—RETAIN DUPLICATE COPY FOR YOUR FILE

Closing

Time of Bids Thursday, June 26, 1980 at 11:00 A.M.

THE CITY IS EXEMPT FROM FEDERAL EXCISE AND INDIANA STATE SALES TAX. THE CITY'S INDIANA SALES TAX EXEMPTION CERTIFICATE NUMBER IS NO. 14344. PRICES SHOULD NOT INCLUDE THESE TAXES. See "Instructions to Bidders" No. 18 on reverse hereof for details.
TAX EXEMPT (Unless otherwise indicated)

Quantity	Unit	Materials, Supplies, Equipment or Services	Unit Price	Total Amount
1		1980 Front End Loader as per attached Specifications, or equivalent. Case Model W78 Questionnaire must be completed in full	\$42,237.62	\$42,237.62

Affirmative Action: One File: Attached:

BID Bond required EX 5% Performance Bond NO

See instructions item No. 18 on reverse side hereof.

Terms 0 % cash discount if paid within 0 days from delivery and acceptance of goods or completion of services.

PROPOSAL OR BID

In compliance with the above invitation for bids and subject to all conditions thereof, the undersigned agrees and agrees, if this bid be accepted within a reasonable time from date of closing, to furnish any or all of the items or render such services which prices are quoted, in accordance with the specifications appearing and in the plans and drawings hereto attached.

Delivery of any or all of the items or completion of services indicated shall be made within 30 days from receipt of order.

IMPORTANT

As delivery may be a condition precedent to the award of an order, it is important that bidders furnish the information requested above.

Signature

Holt Equipment Co.
All Sales & Service
1776 1/2 S. Cedar St.
City Holt, Michigan 49242 Date 6-26-80

SPECIFICATIONS QUESTIONNAIR

Bidders Proposal - To Be Completed
By the Bidder

1. Engine: Case A401BD diesel gross hp. 114@2200 rpm
SAE net hp. - #03-103@2200 rpm 6 cylinder
298 lb. ft. @ 1450 rpm 4.125 x 5" 401 c.i.d.
electrical 24 volt 30 amp.
2. Torque Converter: 5.11 - 1.0 ratio
3. Transmission: speeds 1st. 2nd. 3rd. 4th.
2 speed forward 3.7 7.5 12.0 23.0
modulated clutching reverse 4.7 9.5
4. Differentials: two speed torque proportioning, modulated clutching
5. Axles: out board planetary frt. axle fixed oscillates
up to 12 degrees-24 degrees total one wheel can drop 16"
6. Steering: articulated right or left 40 degrees
turning circle outside 32' 7"
7. Brakes: Air over hydraulic internal expanding
air actuated mechanical parking brake
8. Loader Linkage: open
9. Hydraulic System: Dual stage gear pump 48GPM @ 2200RPM @ 2150 PSI
hardened, chrome plated cylinder rods
lift 5" dia. x 30.1" stroke bucket 4" dia. x 28.35 stroke
raise 6.1 seconds lower 3.5 seconds dump 1.7 seconds total 11.3
10. Hydraulic Controls: boom- raise, hold, down, & float
bucket- rollback, hold, & dump

11. Service Capacities: Cooling- 13 gal. Crankcase 3 gal.
trans. 9 gal. diff. final drive frt. 4.5 gal. rr. 4.5 gal.
hyd. system 29 gal. fuel tank 50 gal.

12. Bucket Size: cu. yd. 3 rated cap. struck 3 yd.
bucket width 94" max. mat. 8100# stockpile 8100#
static tipping load 8100# ROPS SAE 15'8" hight 45% dump
11'7" cut. edge overall 20'7" turning circle 32'7"

13. Standard Equipment: Air cleaner- dry type adjustable bucket seat w/seat belt
acces ladders Alternater 30 amp. Cartrage type filters
for engine oil trans torque converteer oil, hyd. oil, Vandelizim protection
air horn Engine compartment side panels Lights working and travel
2- frt. 2-rr. 2 stop, master key disconnect, muffler, saftey start, ROPS

14. Optional Attachments: adj. bucket leveler, backup alarm, multi purpose bucket
counterwieght kit, 3 spoole hyd. valve, heater and defroster, wiper &washer
ROPS cab tinted saftey glass, turn signals

15. Tires:

16. Tire Size: 17.5 x 25.12 tread 73" decrease in vertical 0.5
width over tires 91"



W18 Loader



103 SAE NET FLYWHEEL HORSEPOWER
Case 401 c.i.d. diesel engine

FULL POWERSHIFT TRANSMISSION
Four speeds forward, two reverse

SINGLE LEVER SHIFT CONTROL
Modulated transmission clutching for fast,
smooth, on the go directional changes

TWIN TURBINE TORQUE CONVERTER
Automatically shifts to meet changing load
demands for optimum cycling productivity

IN-LINE LOADER LINKAGE

All linkage mounted in line with the loader lift
arms for good visibility to bucket work area

**LONG 108" WHEELBASE PLUS
40° ARTICULATION**

Combines operational stability and balance with
excellent turning radius

CENTER-PIVOT STEER

Allows rear and front tires to track at all times

Unit shown is equipped with non-standard items.
Manufactured by J I Case Company, Racine Wisconsin USA

J I Case
A Tenneco Company



LOADER SPECIFICATIONS

ENGINE

Make and model	Case A401BD
Fuel	diesel
Maximum rated horsepower	
(1) Gross	114 @ 2200 rpm (85 kW @ 2200 r/min)
(2) SAE net	103 @ 2200 rpm (76.8 kW @ 2200 r/min)

Torque, maximum	
At 500' (152 m) altitude, 85°F (29°C)	298 lbs-ft @ 1450 rpm (411.8 Nm @ 1450 r/min)
Cylinders, number (valve-in-head)	6
Bore and stroke	4.125" x 5" (105 mm x 127 mm)
Displacement	401 in³ (6.55 lit)
Starting	24 volt electric
Air cleaner (with service indicator)	two element, dry type
Oil filter	full-flow type

(1) Manufacturer's rating of maximum engine horsepower at flywheel when equipped with oil and water pumps. Fuel set at maximum quantity for this application. Corrected to sea level 29.92" (760 mm) Hg and 60°F (15°C) dry air.

(2) SAE net flywheel horsepower of engine as applied to this vehicle when equipped with operating accessories including oil and water pumps, alternator, air cleaner, fan and muffler. Corrected to 500' (152 m) altitude with .38" (9.5 mm) Hg vapor pressure, 29.38" (748 mm) Hg observed barometer and 85°F (29°C) per SAE J816 specifications.

TRAVEL SPEEDS (with 17.5 x 25 tires)

	1st	2nd	3rd	4th		
Forward	mph	km/h	mph	km/h	mph	km/h
Forward	3.7	5.95	7.5	12.07	12.0	19.31
Reverse	4.7	7.56	9.5	15.29		23.0
					37.01	

TRANSMISSION

Four speeds forward, two speeds reverse, powershift. Single lever control. Modulated clutching. First low to first high and second low to second high is done automatically.

TORQUE CONVERTER

Twin turbine integral with transmission. 5.11 to 1.0 stall ratio.

AXLES (front and rear)

Front axle fixed. Rear axle oscillates up or down 12°, 24° total oscillation. One wheel can drop 16" (406 mm) with all wheels remaining on the ground for maximum traction. Axle shafts may be removed without disturbing the wheels or planetaries.

DIFFERENTIALS

Torque proportioning differentials, front and rear for maximum traction.

BRAKES

Air over hydraulic, internal-expanding, 4-wheel. Air actuated mechanical parking brake. Automatically sets if air pressure drops below safe operating level. Red warning light indicates when parking brake engaged.

STEERING

Center pivot articulated design with hydrostatic power steering. Front and rear wheels always track.

Steering angle-one direction from center 40°

Steering pump 23 gpm @ 2200 rpm @ 2000 psi
(87 lit/min @ 2200 r/min @ 141 kg/cm²)

Steering cylinders 3" dia. x 15" stroke
(76 mm dia. x 381 mm stroke)

Turning circle outside tires 32'7" (9931 mm)

LOADER HYDRAULIC SYSTEM

Cylinders: Double-acting with hardened and chrome-plated rods to increase strength and resist corrosion.

Lift (2) 5" dia. x 30.1" stroke
(127 mm dia. x 764 mm stroke)

Bucket (2) 4" dia. x 28.35" stroke
(102 mm dia. x 720 mm stroke)

Pump: Dual-stage, gear-type, converter-driven, 48 gpm @ 2200 rpm @ 2150 psi (182 lit/min @ 2200 r/min @ 151 kg/cm²).

Control valve: Open-center, series parallel circuit.

Hydraulic lines: Steel tubing with brazed fittings and wire-braid, high-pressure hose with swaged fittings.

Reservoir: Closed, positive air pressurized reservoir insures exclusion of contaminants and positive input flow to pump. All input oil to pump passes through micronic filter, furnishing clean oil to all components of the hydraulic system.

Hydraulic cycle time:

(Rated load in bucket)	Seconds
Raise	6.1
Lower	3.5
Dump	1.7
Total	11.3

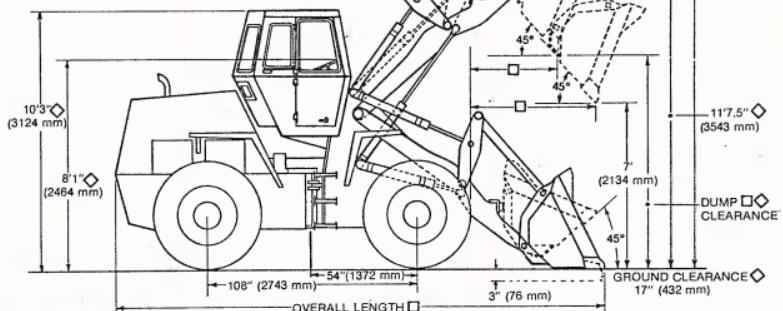
SERVICE CAPACITIES

	U.S. Gals.	Liters
Fuel tank	50	189
Hydraulic system	29	110
Transmission and torque converter	9	34
Engine crankcase	3	11
Differentials and final drives		
Front	4.5	17
Rear	4.5	17
Cooling system	13	49

NOTE: Specifications herein are in accordance with all Society of Automotive Engineers' standards (SAE). The applicable Loader Standard is SAE J732C and is denoted by §.

OPERATING DIMENSIONS

14.00 x 24, L2 tires	17.5 x 25, L2 tires
Tread 73" (1854 mm)	73" (1854 mm)
Width over tires 88" (2235 mm)	91" (2311 mm)
Decrease in vertical dimensions: 0.5" (13 mm)	(None)
Increase in horizontal dimensions: 0.6" (15 mm)	(None)



◊ Varies with tire size.
◊ Varies with bucket size, refer to performance specifications.

PERFORMANCE SPECIFICATIONS §

BUCKET TYPE- Capacity SAE Rated (nominally heaped) §	GENERAL PURPOSE 1.75 yd ³ (1,34 m ³)	GENERAL PURPOSE 2 yd ³ (1,53 m ³)	GENERAL PURPOSE 2.5 yd ³ (1,91 m ³)	4-IN-1 1.5 yd ³ (1,2 m ³)
Dump Clearance @ 45° Dump - Full Height ◊ §	9'2" (2794 mm)	9'0" (2743 mm)	8'8" (2642 mm)	9'0" (2743 mm)
Bucket Reach @ Full Height & 45° Dump §	2'11" (889 mm)	3'1" (940 mm)	3'5" (1041 mm)	3'2" (965 mm)
Bucket Reach @ 7' Clearance 45° Dump §	4'4" (1321 mm)	4'5" (1346 mm)	4'7" (1397 mm)	4'6" (1372 mm)
Loader Clearance Circle - Bucket in Carry Position §	35'4" (10770 mm)	35'6" (10820 mm)	35'9" (10897 mm)	35'10" (10922 mm)
Overall Length §	19'11" (6071 mm)	20'2" (6147 mm)	20'7" (6274 mm)	20'5" (6223 mm)
Overall Height ◊ §	15'0" (4572 mm)	15'3" (4648 mm)	15'8" (4775 mm)	14'5" (4394 mm)
SAE Breakout Force, lbs.	22440 (10179 kg)	20438 (9271 kg)	17572 (7971 kg)	21628 (9810 kg)
SAE Tipping Load, Straight lbs.** §	13608 (6172 kg)	13473 (6111 kg)	13272 (6020 kg)	11955 (5423 kg)
35° Turn	12463 (5653 kg)	12339 (5597 kg)	12156 (5514 kg)	10953 (4968 kg)
40° Turn	12126 (5500 kg)	12007 (5446 kg)	11828 (5385 kg)	10659 (4835 kg)
SAE Operating Weight, lbs.**	19881 (9018 kg)	19931 (9041 kg)	19981 (9063 kg)	20431 (9267 kg)

**For select items, add to or deduct from the machine operating weight and tipping loads as given in the chart below. All dimensions and specifications based upon unit with 17.5 x 25, L2, 12 PR tires, ROPS cab, fenders, optional seat, fully serviced and 175 lb. operator.

Selected Items	Operating Weight Adjustments		Tipping Load Adjustments					
	lbs	kg	Straight	35° Turn	40° Turn	lbs	kg	
17.5 x 25 L2 w/75% Ca Cl ₂	+1218	+552	+1752	+795	+1594	+723	+1547	+702
14.00 x 24 G2	-737	-334	-531	-241	-482	-219	-468	-212
14.00 x 24 G2 w/75% Ca Cl ₂	+233	+106	+865	+392	+787	+357	+764	+347
W/ROPS Canopy	-530	-240	-443	-201	-443	-201	-443	-201
W/O Fenders	-202	-92	-183	-83	-171	-78	-168	-76

EQUIPMENT ATTACHMENTS

BUCKETS

TYPE	lbs	kg	Material Weight		SAE Rated yd ³	Capacity m ³	Struck m ³	Cutting Edge Width	
			per yd ³ (m ³)	per m ³ (yd ³)				inches	mm
General Purpose	3465	1572	1.75	1.34	1.41	1.08	94.6	2403	
General Purpose	3000	1361	2.0	1.53	1.63	1.25	94.6	2403	
General Purpose	2965	1073	2.5	1.91	2.07	1.58	94.6	2403	
4-in-1	3550	1610	1.5	1.2	1.29	1.0	95.6	2469	

4-in-1 SPECIFICATIONS §

- A — Forward dumping clearance
@ 45° discharge ◊ 9'0" (2743 mm)
- B — Bottom dumping clearance
@ 45° discharge ◊ 11'0" (3353 mm)
- C — Hinge pin height ◊ 117.5" (3543 mm)
- D — Overall height ◊ 17'0" (5182 mm)
- E — Bottom dumping reach
@ 45° discharge on clam ◊ 24" (610 mm)
- F — Forward dumping reach
@ 45° discharge ◊ 3'2" (965 mm)
- G — Digging depth ◊ 9" (229 mm)
- H — Bucket opening 3'10" (1168 mm)
- Reach @ 45° dump angle, 7' (2130 mm)
clearance ◊ 4'6" (1372 mm)
- Tilt back @ ground level 50°
- Closure force, clamp to cutting edge 12,850 lb (5829 kg)
- Weight 1900 lb (862 kg)

◊ SAE code adhered to, 17.5 x 25 L2, 12 PR tires used.
 ◊ Varies with tire size - refer to performance specifications.

STANDARD EQUIPMENT

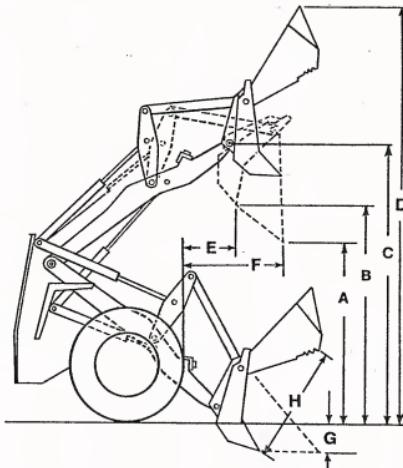
ROPS canopy with seat belt. Alternator with voltage regulator. Batteries, 24 volt start. Front and rear flood lights. Taillight and stop light. Pusher fan. Two-element, dry-type air cleaner. Air horn. Powershift transmission. Air-over hydraulic brakes. Parking brake. Alternator warning light, engine oil pressure warning light, engine water temperature gauge, converter oil temperature gauge, clutch pressure warning light, air pressure gauge, fuel gauge, parking brake light and tachometer. Drawbar.

OPTIONAL EQUIPMENT

ROPS cab with air pressurization and sound suppression, seat belt accompanies ROPS. Buckets. Log forks. Pallet forks. Power train guard. Engine side panels. Fenders. Heater and defroster. Cold weather starting equipment. Lockup kit. Tire inflation kit. Turn signals. Additional driving lights. Automatic, adjustable bucket height kickout. Automatic return-to-dig mechanism. Spark arresting muffler. Air conditioning. Suspension seat. Back-up alarm. Auxiliary steering. Rotating beacon.

TIRES (front and rear)

14.00 x 24, 10 PR, traction-type, G2
 17.5 x 25, 12 PR, traction-type, L2
 17.5 x 25, 12 PR, rock type, L3



NOTE: All specifications are stated in accordance with ICED Definitions or SAE Standards or Recommended Practices, where applicable.

IMPORTANT

J I Case Company reserves the right to change these specifications without notice and without incurring any obligation relating to such changes.

CITY OF FORT WAYNE

DEPARTMENT OF PURCHASES

Number One Main St., Ft. Wayne, Ind. 46802

INVITATION

Quotations, subject to the conditions on the reverse hereof, are requested on the following list of materials, supplies, equipment or services, for the department as mentioned, with delivery to destination as shown below. Quotations shall include all charges for delivery, packing, etc. Address your reply to "Invitation Sheet." 423-7037

*Mail all replies and correspondence, with the Attn. of Aaron M. Gluck

DEPARTMENT OF PURCHASES

Room 940 Number One Main St., Ft. Wayne, Ind. 46802

REQUIRED FOR DELIVERY TO:

Department or Division Street Department
1701 South Lafayette
Address Fort Wayne, Ind. 46803

Fund Appropriation No. _____

RETURN ORIGINAL TO THE CITY - RETAIN DUPLICATE COPY FOR YOUR FILE

Closing

Time of Bids Thursday, June 26, 1980 at 11:00 A.M.

TAXES: THE CITY IS EXEMPT FROM FEDERAL EXCISE AND INDIANA STATE SALES TAX. THIS CITY'S INDIANA SALES TAX EXEMPTION CERTIFICATE NUMBER IS NO. 1448. PRICES SHOULD NOT INCLUDE THESE TAXES. See "Instructions to Bidders" No. 10 on reverse hereof for details.

TAX EXEMPT (Unless otherwise indicated)

Quantity	Unit	Materials, Supplies, Equipment or Services	Unit Price	Total Amount
1		1980 Front End Loader as per attached Specifications, or equivalent.		
1		Questionnaire must be completed in full		
1		Terex, Model 72-21B Front End Loader	\$49,999.00	
1		OPTIONAL BID -		
1		Terex, Model 72-21B Demo - equipped with 2-1/4 cubic yard general purpose bucket in lieu of multi-purpose bucket. Demo hours - 40.	\$45,850.00	
		Affirmative Action: One File: <input checked="" type="checkbox"/> Attached: _____		

Bid Bond required EX 5% Performance Bond EX

See Instructions Item No. 14 on reverse side hereof.

Terms: None % cash discount if paid within _____ days from delivery and acceptance of goods or completion of services.

PROPOSAL OR BID

In compliance with the above invitation for bids and subject to all conditions thereto, the undersigned offers and agrees, if this bid is accepted within a reasonable time from date of closing, to furnish any or all of the items or render such services upon which prices are quoted, in accordance with the specifications appearing and on the time and opposite each item.

Delivery of any or all of the items or completion of services indicated shall be made within 60 days from receipt of order.

IMPORTANT

As delivery may be a deciding factor in the award of an order, it is important that bidders furnish the information requested above.

John H. Holcomb
Reid/Holcomb Company, Inc.

Name of Company *John H. Holcomb* Branch Manager

For *John H. Holcomb* Address 3333 W. Coliseum Blvd.

City Ft. Wayne, Indiana 46808 Date 6/24/80

BID, OFFER OR PROPOSAL

on

**MATERIAL OR MATERIALS, EQUIPMENT,
GOODS OR SUPPLIES**

Fort Wayne, Indiana, June 26, 1980

To Department of Purchases, City of Fort Wayne, Fort Wayne, Indiana

State name, official position and municipality

Pursuant to notices given, the undersigned proposes to furnish the material or materials, equipment, goods or supplies as per said notices and specifications now on file in the office of _____

Aaron M. Gluck

Director of Purchases

City of Fort Wayne, Fort Wayne, Ind

State name

official position

and municipality

and as per copy thereof, hereto attached, or as described herein for the following amounts:

(State the class or item number or an exact description of the material or materials, equipment, goods or supplies to be furnished and amount of bid on each article.)

Class or Item	Quantity	Unit	Quality—Description	Unit Price	Amount
	1	each	Terex, Model 72-21B Front End Loader, as per specifications on Page 7 and Page 8 on your bid number 930-G		
			PRICE DELIVERED.....		\$49,999.00
			OPTIONAL BID -		
	1	each	Terex, Model 72-21B Demo - equipped with 2-1/4 cubic yard general purpose bucket in lieu of multi-purpose bucket. Demo hours - 40		
			PRICE DELIVERED.....		\$45,850.00
			Delivery - 60 days		
			Terms - First meeting of the month after receipt of invoice.		
			Complete specifications enclosed		

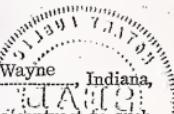
PROPOSAL

The undersigned bidder agrees to furnish to Department of Purchases, City of Fort Wayne Indiana, all articles and things enumerated on the foregoing pages in accordance with the specifications and in compliance with all stipulations therein, at and for the prices set opposite each item, and declares and represents that the price herein charged for each and every article and thing named in this offer or bid is net, and that it is fair, just and usual; that he has not offered nor received a less price for the articles embraced in this bid than that stated herein, except None

Here state specifically to whom, when, why, price

that if this bidder shall offer to or receive from any person, firm, board, commission, trustee or corporation, during the continuance of the contract sought hereunder, a less price than that stated herein, excepting market changes, he consents that the difference shall be deducted from any sum due under said contract, or, if there be none, that said difference may be recovered from him by appropriate action; and it is hereby agreed by this bidder that this stipulation shall be a part of any contract that may be entered into upon this bid; and this bidder further agrees that he will not, directly or indirectly, withdraw this bid from the office in which it is filed and that the same shall in the manner and form in which it is made, become and remain a part of the public documents in said office.

The undersigned bidder further agrees that on acceptance of this proposal by the

Department of Purchases of said City of Fort Wayne, Fort Wayne Indiana,
Board or Trustee Gov't Unit 

as to either or all the classes or items, this bid and agreement is to become and be a contract to such effect, as to each class or item so accepted upon the filing herewith of a bond or certified check in the amount as required by the purchaser in notice to bidders. Any liability for breach of said contract shall be enforceable by an appropriate action upon said contract or bond or certified check, as the case may be, or either or both of them as provided by law in similar cases.

In testimony whereof the bidder has hereunto set (their) hands this 26th day of

June, 19 80

REID-HOLCOMB COMPANY, INC.
Bidder

By 

Robert T. Conant, Treasurer-Assistant Secretary
Agent or Individual Members of Firm or

Officers of Corporation

SPECIFICATIONS QUESTIONNAIRE

Bidders Proposal - To Be Completed
By the Bidder

1. Engine: Detroit Diesel 3-53T; 115 net flywheel horsepower at 2500 R.P.M.,
302 ft. lb. torque at 1600 R.P.M., 477 cu. in. displacement, 3.88 in. x 4.5 in. bore
and stroke
2. Torque Converter: Single stage. Mounted integral with transmission. Stall ratio -
2.6:1
3. Transmission: Dual lever full powershift transmission. 19.0 m.p.h. forward
and reverse
4. Differentials: Single reduction bevel gear. 5.22:1
5. Axles: Heavy duty, with inboard mounted planetary final drive
6. Steering: Full power steering. 80° pivot steer
7. Brakes: Wet disc type, front and rear. Dual air over hydraulic
actuation. Mechanical parking brake
8. Loader Linkage: Standard.
9. Hydraulic System: Three section gear type pump. Two double acting steering
cylinders, 3.0 in. x 17.5 in. bore and stroke. Two double acting lift cylinders,
5.5 in. x 26.0 in. bore and stroke, one double acting bucket cylinder, 6.0 in. x 31.75 in.
bore and stroke
10. Hydraulic Controls: Boom position: raise, hold, lower and float
Bucket position: roll back, hold and dump

11. Service Capacities: Cooling system - 6.0 gal., crank case - 3.5 gal.,
transmission - 6.0 gal., hydraulic tank including tank - 31 gal., differentials - 6.25 gal.

12. Bucket Size: 2 cubic yard heaped, 1.6 cubic yard struck, 96" wide, 16,065 lbs.
straight tipping load, 14,578 lbs. full turn tipping load, 21,435 lbs. operating weight,
9'1-1/2" dump clearance, 4' 10-1/2" reach at 7', 21'3" overall length, 19' turning
diameter

13. Standard Equipment: As per enclosed specification sheet, including bucket leveler,
back-up alarm, 700# counterweight, R.O.P.S. Cab with tinted safety glass and
front windshield wiper

14. Optional Attachments: 1-3/4 cubic yard multi-purpose bucket, heater and
defroster, 3 spool valve, turn-signal with hazard flashers

15. Tires: Calcium chloride in rear tires

16. Tire Size: 17.5 x 25 - L2 12 PR

TEREX 72-21B LOADER

117 HP (87 kW) Flywheel Power



72-21B Quiet Versatility

72-21B . . . the TEREX loader that offers the quietest operation of any loader in its size range. It's a loader designed specifically for jobs requiring the maneuverability of compact size wrapped up in lots of muscle.

72-21B is at home anywhere there's loading to be done; in maintaining roads; stockpiling; loading up to 12 yd³/18 ton (9 m³/16t) highway trucks with sand, gravel, salt; removing snow; developing building sites; installing and maintaining sewers; handling materials around asphalt plants and other industrial sites; even log handling and tree shearing.

HIGHLIGHTING

THE 72-21B . . .

- EFFICIENT, RESPONSIVE, QUIET TURBO-CHARGED POWER
- THREE SMOOTH, QUICK RESPONDING FORWARD/REVERSE TRANSMISSION SPEEDS
- EASY OPERATION
- DOUBLE REDUCTION DRIVE AXLES
- ALL-WHEEL DRIVE
- WET DISC BRAKES
- FAST ACTING HYDRAULICS
- HIGHLY MANEUVERABLE EXCLUSIVE TEREX 60/40 SPLIT PIVOT-STEER DESIGN
- HEAVIEST FULL-TURN TIPPING LOAD IN THIS SIZE RANGE
- DURABLE CHASSIS DESIGN
- ELECTRICAL DEPENDABILITY
- EFFICIENT CYCLING BUCKET CONTROLS
- VARIETY OF BUCKET SIZES
- GOOD VISIBILITY, SAFE, COMFORTABLE OPERATION
- ACCESSIBLE ROUTINE SERVICE POINTS
- STANDARD EQUIPMENT SECURITY KIT



**SPECIFICATIONS FOR TEREX 72-21B
EQUIPPED WITH A 2 YD³ (1.53 m³) BUCKET**

Breakout Force	18,600 lbs.	(82 733 N 8 437 kg)
Static Full Turn Tipping Load*	14,578	(6 612 kg)
Maximum Dump Clearance @ 45°	9 ft. 1 1/2 in.	(2.78 m)
Maximum Forward/Reverse Speeds	19 mph	(30.6 km/h)
Turning Diameter	19 ft. 0 in.	(5.79 m)
Overall Length On Ground	21 ft. 3 in.	(6.47 m)
Operating Weight (Mass)*		
Front	9,908 lbs.	(4 494 kg)
Rear	11,527 lbs.	(5 228 kg)
Total	21,435 lbs.	(9 723 kg)

*Tipping Load and Operating Weight (Mass) include ROPS Cab and 17.5-25 (12 PR) L-2 Tires.

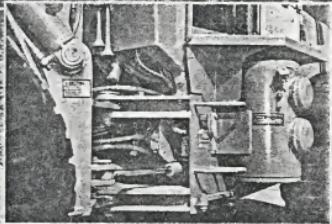
**STANDARD EQUIPMENT
SECURITY KIT**

□ Security kit includes hasps (locks optional) on radiator, fuel, transmission and hydraulic system filler openings. Lockable instrument panel cover plates and engine lubricating oil dipstick and filler opening hasps and locks are available.

□ Complete specifications are detailed in the TEREX 72-21B Specification Sheet.

Your nearby TEREX dealer is anxious to talk to you about the 72-21B's quiet operation, versatility and capabilities in handling your loading requirements.

□ The TEREX 72-21B Loader is backed by TEREX parts and service-readily available from TEREX dealers around the world.



Efficient, Responsive, Quiet Turbo-Charged Power... The 72-21B

OVERALL ENGINE DESIGN FEATURES

- The turbocharged Detroit Diesel 3-53T Engine delivers 115 hp (86 kW) at the flywheel at altitudes up to 10,000 ft. (3000m). And the high torque rise characteristics of this engine provide fast load handling/cycling.
- Two cycle design produces power on every piston down-stroke for faster acceleration, smoother operation and lower shock loads than with four cycle engines. Greater air flow maintains low exhaust emissions, operating temperature and pressure. Lower operating temperature and cylinder pressure permits using lighter, less costly parts, thereby holding down maintenance costs.
- Seventy percent interchangeability of vertically moving parts with other 53 Series Engines results in lower parts inventory requirements, simpler maintenance.
- Lower fuel consumption is derived from turbo-charging, unit fuel injection, high fire rings piston and 18.7:1 piston compression ratio.
- The quietest engine package of any loader in this size range distinguishes the 72-21B; a real plus when working in residential areas. Engine sound is channeled through the turbo system piping. And rounding out the engine sound reduction package are slow speed fan, vertical deflection of fan air/noise and isolated power train mounts.

LOW PRESSURE UNIT INJECTION SYSTEM

- Direct fuel injection into the combustion chamber results in more efficient combustion, lower exhaust emission and faster cold weather starts than pre-combustion chamber injection.
- Low pressure unit injectors permit using a simple three-piece fuel pump that requires no adjusting. There are no high pressure pump and fuel lines to invite tampering and complicate servicing because the injectors meter, pressurize and atomize the fuel. And "clean tip" non-clogging injectors further reduce exhaust emissions.
- Fuel recirculation effectively cools injectors for extended economical service life.



THREE SMOOTH, QUICK RESPONDING FORWARD/REVERSE TRANSMISSION SPEEDS-EASY OPERATION

- The Clark 18326 semi-automatic transmission develops high tractive energy for productive crowding, digging and load transporting. It converts engine power to the most efficient operating torque range.



□ Fast cycling, especially in tight maneuver back-and-forth operating situations is the product of modulated hydraulic actuated clutches. The operator need not be an expert. Range shifts are smooth even under full power, from crowding/digging (low)—to load transporting (intermediate) to roading (high). Drive train shift shock is curtailed, operation is comfortable.

□ A de-clutch feature automatically disengages the transmission whenever the brake pedal is depressed and the de-clutch switch is "on". The advantages of this are: faster cycling because full engine power is directed to the bucket hydraulic pump for faster raise-lower-dump-roll action; operation is easier, more efficient, safer because of the "feathering" action as clutches remain engaged during initial brake application and gradually disengage as brake application is increased. With the de-clutch switch "off" de-clutching is deactivated and the applied clutch remains applied when the brake pedal is depressed to any degree.

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DOUBLE REDUCTION DRIVE AXLE/ALL-WHEEL DRIVE

- Speed reduction (torque multiplication) occurs at two points in each drive axle: the differential and the planetary. A combined torque multiplication of 25.06:1 teamed with all-wheel drive for excellent crowding and digging capability keeps you loading at a steady pace.
- No Spin differential (optional) increases traction under slippery conditions. Contact your TEREX dealer for information on recommended job application for No Spin.

SEALED WET DISC BRAKES

- Wet discs are surrounded by oil for maximum heat dissipation and fade resistance. Braking control is better than with dry linings at all degrees of application. Since brakes are sealed, brake performance is maintained when operating in water, slurry and other adverse conditions.
- Service requirements are minimal, as wet disc linings wear longer than dry linings and brakes are self adjusting.
- For operator safety, brake air pressure drop to a preset safe minimum sounds a warning horn. The parking brake is mechanically actuated and can be used in an emergency should air brakes fail.

FAST HYDRAULICS

- The separate hydraulic systems, supplied by a three-section gear type pump, guarantee adequate oil flow for full power steering at all engine speeds. A real plus for helping the non-expert operator handle the loader with ease; especially on jobs that require lots of tight maneuvering. At higher r.p.m.'s all flow in excess of steering requirements is shifted to the main (bucket) system for faster lift arm and bucket action. A quick-drop feature in the main control valve speeds lowering the bucket. If the main (bucket) system malfunctions due to a drop in oil level, the steering system, sourced at a lower level, will remain functional. An optional electric emergency steering system maintains steering capability in case of engine failure.

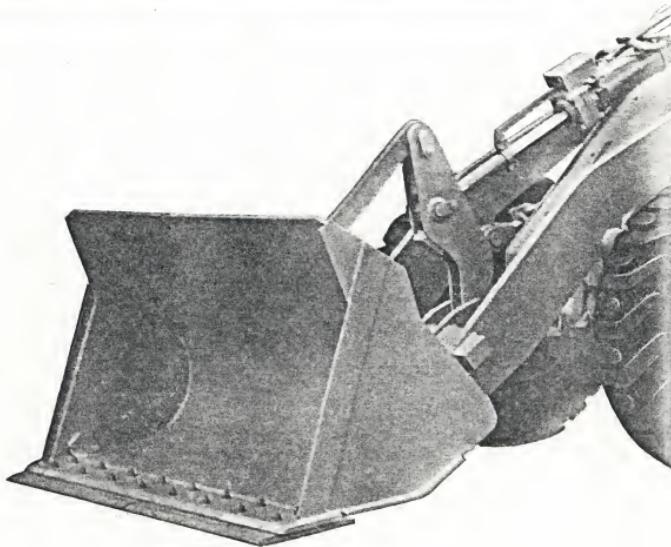
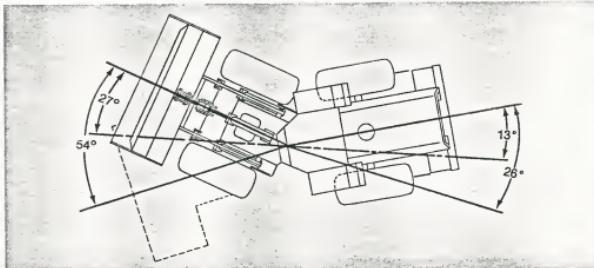
HIGHLY MANEUVERABLE, EXCLUSIVE TEREX 60/40 SPLIT PIVOT STEER DESIGN

- The compact size of the 72-21B combines with exclusive TEREX 60/40% split pivot steer design to provide 54° of bucket swing. That's considerably more than any competitive make loader. It gives the 72-21B a decided edge for maintaining high productivity in tight quarters with limited experience operators.
- Total rear frame swing (where the operator sits) is only 26°. That's considerably less than any

competitive make loader.

- Rear tires track inside front tires. Rear fenders clear obstacles once front fenders have cleared. And, all tires track within the width of the bucket, a real plus in moving around in tight quarters.

- The rear axle vertically oscillates 18° to permit riding over, rather than around obstacles up to 12" (305 mm) high with no twisting of the frame. All wheels remain on the ground for stability and traction. Ground clearance is a full 15" (381 mm).



HEAVIEST FULL TURN TIPPING LOAD CAPACITY OF ANY LOADER IN THIS SIZE RANGE

□ You reap the benefits of bigger loads when you put the 72-21B to work in heavy materials. Optional 20.5-25 (12PR) L-3 tires combine with total loader design to provide a full turn static tipping load capacity of 17,484 lbs. (7,931 kg); the heaviest load capacity while negotiation of full turn of any loader in this size range.



DURABLE CHASSIS DESIGN

- The TEREX 72-21B is built strong like larger TEREX loaders for heavy loads. Front and rear frames and lift arm/oval torque tube assembly are shaped from alloy steel.
- The rigid front axle mounting, the 18° oscillating rear axle, massive pivot pin support fabrication, and widely spaced spherical bushing pivot pin mountings combine to evenly distribute structural loads over the entire chassis.
- Steering cylinders and front driveline are mounted above the lower frame pivot pin for protection. Ground clearance is a full 15" (381 mm).
- Chassis design is just right for loading up to 12 yd³/18 ton (9 m³/16t) highway trucks, with a bucket hinge pin maximum height of 11 ft. 7 in. (3.53 m).
- Stability is excellent with the 700 lb. (318 kg) standard equipment counterweight, wide stance and low center of gravity.

ELECTRICAL DEPENDABILITY

- The 12-volt electrical system is supplied by two 12-volt 90 amp-hr maintenance-free batteries protected by a lockable disconnect switch.
- The direct electric starting system and electrical on-off ignition with a neutral start safety feature assures starting dependability and safety. An additional cold weather battery is available (optional).



FAST CYCLING BUCKET CONTROL

- Raise float, lower, hold, rollback, hold, dump . . . these are the cycles a loader bucket must go through consistently, day after day. The 72-21B, designed for Easy operation, incorporates two control levers to the operator's immediate right for maximum consistent cycling productivity.
- A 50° rollback angle assures a full load/carry.
- For backfilling, the bucket can be rolled forward to over 90° backdrag angle, a very useful feature on many jobs.
- With electro-magnetic lever detents and precisely matched lever length and travel, lift and tilt response is precise, operator control is enhanced.
- In loading, with the lift lever locked in "raise/detent", the bucket can be effectively rocked back and forth in the material with the tilt lever. There's no need to switch back and forth between levers during bucket loading.

For dumping, an adjustable lift arm kickout speeds cycling by stopping the bucket at a preset height. The operator gives full attention to steering, braking and dumping.

In returning to dig a "power-down" feature speeds bucket lowering while a preset, adjustable bucket leveling valve automatically stops bucket rollback at the right position to resume digging. It moves the tilt lever into "hold" automatically for the operator, freeing him for full attention to rocking the bucket. Cycling is constant, productive. The operator can manually override the bucket leveling valve.

VARIETY OF BUCKET SIZES AND ATTACHMENTS

Available bucket sizes include: 2 yd³ and 2 1/4 yd³ (1.53 m³) and (1.72 m³) general purpose.

Available bucket accessories include: supplemental (second) cutting edge for severe application, spillguard for up to 1/2 yd³ (0.33 m³) additional bucket capacity, increased penetration bucket teeth.

1 1/4 yd³ (1.41 m³) multi-task and side-dump. A wide variety of attachments include: booms, pallet forks, American Coupler and log forks.

GOOD VISIBILITY, SAFE, COMFORTABLE, EASY OPERATION

All-around visibility is excellent, with generous tinted glass area, low-profile front end design, oval shaped lift arm torque tube, interior light and windshield wiper. The angled instrument panel, prominently displays a full complement of illuminated gauges.

Efficient wet-disc brakes are designed (in compliance with O.S.H.A. regulations) for continued operation of front or rear brakes should any brake air system component fail.

Steering hydraulic system remains functional should main hydraulic system fail.

Hydraulic lines have 400% minimum safety margin between working pressure and burst pressure.

Loader is designed for excellent stability as evidenced by highest full turn tipping load capacity in its size range.

Loader has non-skid platform, grab handles and steps both sides.

Cab is roomy, has high dust resistant door sills, lockable doors both sides. Doors can be bolted open.

Quiet operation design from the ground up: modular cab featuring isolated mounting, insulated ceiling and walls, rubber floor mat, isolated power train mounting, slow-speed fan and vertical deflection of fan air/noise.

Air conditioning is available as an option.

Rollover protective structure (R.O.P.S) meets O.S.H.A. regulations.

Contoured, padded 6-way adjustable seat with quick-release belt meets SAE standard J386. Torsion bar seat suspension is available.

Lift and tilt controls are to the operator's immediate right, with the transmission shift lever to the left; ideal for cycling efficiency and all-round control.

ACCESSIBLE ROUTINE SERVICE POINTS

Routine service points are easily accessible for quick servicing. Batteries are maintenance-free. Lubrication and tire inflation charts and serial number plates are attached to the rear frame for ready reference.



STANDARD EQUIPMENT

FILTERS

Engine Air Cleaner
Engine Lubricating Oil
Engine Fuel Oil (2)
Steering Bucket Hydraulic Oil
Transmission Hydraulic Oil

GAUGES/DIPSTICKS

Engine Air Cleaner Service Indicator
Engine Coolant Temperature
Engine Lubricating Oil Pressure
Engine Fuel Oil Level
Engine Hourmeter
Coverter Oil Temperature
Transmission Hydraulic Oil Pressure
Transmission Hydraulic Oil Level
Steering/Bucket Hydraulic Oil Level
Ammeter

WORKING (Hydraulic, Mechanical, Electrical)

Adjustable Bucket Leveler
700lb. (318 kg) Counterweight
Drawbar Hitch Pin
(2) Front, (2) Rear, Tail
and Stop Lights
Automatic and Manual
Transmission Declutching
Wet Disc Brakes
Master Electric Disconnect Switch
40 Ampere Alternator
(2) 12-Volt Batteries

SAFETY/COMFORT

Right and Left Side Access Steps
Low Air Pressure Audible Alarm
Dual Brake Air System
Mechanical Parking Brake
(SAE J1152)
Engine Fan Screen
Air Horn
Audible Reverse Alarm
Rops Cab
Modular Construction
Isolated (Sound Deadening)
Mounts
Sound Insulated Ceiling and Walls
Rubber Floor Mats
Windshield Wiper
Tinted Safety Glass
6-Way Adjustable Seat
Seat Belt (SAE J386)
Dome Light
Isolated (Sound Deadening) Power
Train Mounting
Slow Speed (Sound Deadening)
Fan with Vertical Air/Noise
Deflection
Muffler
Hoodsides
Pivot Locking Bar

MISCELLANEOUS

Engine Blower Fan
Rear Fenders

OPTIONAL EQUIPMENT

WORKING

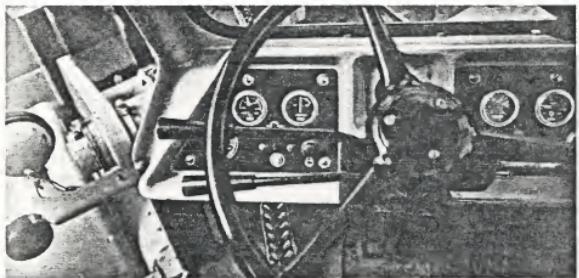
1 1/4 yd³ (1.41 m³) Multi-Task and
Side-Dump Buckets
2 yd³ and 2 1/4 yd³ (1.53 m³ and 1.72
m³) General Purpose Buckets
Log Forks
Additional Hydraulic Controls For
Certain Attachments
Bolt-on G. P. Bucket Cutting Edge
Bolt-on Bucket Teeth
Bucket Spill Guard
Boom Kickout
Rear NoSpin Differential
Rear Axle Disconnect
Logging Package
Boom, Bottom and Headlight
Guards
Roof Mounted Floodlights
Defroster Fan
Cold Weather Battery
90 Ampere Alternator

SAFETY/COMFORT

Air Conditioner
Heater
Turn Signals
Rear Swing-out Window
Suspension Seat
Supplemental Steering
Amber Rotating Light

MISCELLANEOUS

Security Kit
Air System Dryer



Products of General Motors
Worldwide Sales • Service • Parts
Manufactured in Australia • Brazil • Canada
• India • Philippines • Scotland
• United States

REID - HOLCOMB COMPANY, INC.

1815 KENTUCKY AVE. - INDPLS. 46221 - 317-639-3551
6000 BOONVILLE HWY. - EVANS. 47711 - 812-476-1343
3333 W. COLISEUM BLVD. - FT. WAYNE, 46828 - 219-484-3171

TEREX 72-21B LOADER



- 115HP (86 kW) Flywheel Power
- 6,000 lbs. (2 722 kg) Payload Rating



REID - HOLCOMB COMPANY, INC.
1815 KENTUCKY AVE. - INDPLS. 46221 - 317-639-3551
6000 BOONVILLE HWY. - EVANS. 47711 - 812-476-1343
3333 W. COLISEUM BLVD. - FT. WAYNE, 46808 - 219-484-3171

MARCH, 1980
Form No. S-7023

TEREX 72-21B LOADER

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

ENGINE

Detroit Diesel 3-53T,

2 Cycle Turbocharged Diesel

Gross Vehicle Power @ 2500 RPM	125HP (93 kW)
Flywheel Power @ 2500 RPM	115HP (86 kW)
Maximum Torque @ 1600 RPM	302 ft. lb. torque (410 N·m)

Flywheel power is the net power available to the transmission torque converter after deductions for standard engine equipment (water pump, fuel pump, lubricating oil pump, fan, muffler, alternator, air compressor and air cleaner). The flywheel torque rating is based on standard ambient temperature and barometric conditions 65°F (18°C) and 29.38 in. hg. (99 kPa) using 34.4 API gravity fuel oil at 60°F (15.6°C). The flywheel power rating is maintained to an altitude of 10,000 feet (3,000 m).

Number of Cylinders	3
Bore and Stroke	3.88 in. x 4.5 in. (99 mm x 114 mm)
Piston Displacement	159 in. ³ (2.60 litres)
Fuel	No. 2-D recommended
Maximum RPM (Stall)	2500
Idle Speed RPM	700
Governor type	Limiting speed
Air Cleaner	Dry element
Maximum Operating Slope	20°

TRANSMISSION—Clark 18326

Dual lever full powershift control. Soft-shift feature for full powershift between forward and reverse.

VEHICLE SPEEDS

	MPH	(km/h)
Forward 1 Reverse 1	3.0	(4.8)
Forward 2 Reverse 2	7.0	(11.3)
Forward 3 Reverse 3	19.0	(30.6)

TORQUE CONVERTER

Single Stage.

Mounted integral with transmission.

Stall Ratio 2.6:1

AXLES

Front and rear axle shafts are the heavy duty, with inboard mounted planetary final drive. Four wheel drive.

Rear Axle Oscillation:

Degree (either side of center) ±9°
Wheel Lift (total) 12 in. (304 mm)

DIFFERENTIALS

Single reduction bevel gear.

Ratio 5.22:1
NoSPIN optional for rear axle 5.22:1

STEERING—Pivot Steer

80° pivot steer, 54° bucket swing. Full power steering through steering valve to steer cylinders.

STEERING HYDRAULIC SYSTEM

Two double acting steering cylinders,
bore and stroke 3.0 in. x 17.5 in. (76.2 mm x 444.5 mm)
Pump—Gear type: 20 GPM (1.26 lit./sec.) @ 2500 RPM
Built in demand to main system when steer system not in use.
Steer system has priority.
System relief pressure 2000 psi (13 790 kPa)
Hydraulic tank pressurized tank
The steering hydraulic system shares a common tank with the
bucket hydraulic system.

BRAKES

Service Brakes - Wet disc type front and rear. Dual air over hydraulic actuation. Horn sounds in event of failure of either circuit. Automatic transmission de-clutch with brake pedal depression. De-clutch application controlled through selection switch in the operator's compartment.

Parking Brake - Mechanically expanding shoe off transmission output shaft. Size 10 in. x 1.5 in. (254 mm x 381 mm). Brakes meet SAE J1152.

TIRES AND RIMS

Rims are bolted directly to the wheels for positive non-slip retention.

Tire Size	Rim Width
Standard - 17.5 - 25 (12PR), L-2	14.00 in. (356 mm)
Optional - 17.5 - 25 (12PR), L-3	14.00 in. (356 mm)
Optional - 17.5 - 25 (16PR), L-2	14.00 in. (356 mm)
Optional - 20.5 - 25 (12PR), L-2, L-3	17.00 in. (432 mm)

ELECTRICAL

Direct electrical starting, 12 volt, negative ground. Two 12 volt 90 amp-hr batteries. Master disconnect switch positively disconnects batteries from all circuits. Delco-Remy model 10 SI sealed alternator, rated output 19 amps at 700 rpm, 40 amps at 2500 rpm. Transistorized voltage regulator integral with alternator. Electrical on-off ignition with neutral start safety feature. All dash gauges illuminated. Two front lights, two rear working lights, one stop/tail light.

BUCKET HYDRAULIC SYSTEM

Two double acting lift cylinders,
bore and stroke 5.5 in. x 26.00 in. (140 mm x 660 mm)
One double acting bucket cylinder,
bore and stroke 6.0 in. x 31.75 in. (152 mm x 806 mm)
Pump—Gear Type 25 GPM (1.58 lit./sec.) @ 2500 RPM
System relief pressure 2000 psi (13 790 kPa)
Hydraulic Tank—pressurized tank, filter serviceable without
draining tank.

Control Valve—Two spool hydraulic control
Lift Arm Control Positions—Raise, hold, lower, float
Bucket control positions—Rollback, hold, dump
Bucket leveling valve positions—Adjustable electrical
Hydraulic Spads At Wide-Open Throttle
Raise Lift Arms 6.8 sec.
Lower Lift Arms 4.2 sec.
Dump Bucket 2.1 sec.

SERVICE DATA

Water Cooling System	6.0 gals. (22.7 litres)
Fuel Tank	47 gals. (177.9 litres)
Crankcase	3.5 gals. (13.2 litres)
Transmission & Converter: Dry Fill	6. gals. (22.7 litres)
Refill	3.5 gals. (13.2 litres)

Hydraulic Tank 17.7 gals. (67.0 litres)

Hydraulic System incl. Tank 31 gals. (117.3 litres)

Axles (differential & planetary) 6.25 gals. (23.7 litres)

Recommended Fluids & Lubricants

Axles	JDM J20A
Cooling system	Permanent type ethylene glycol base
Hydraulic System	API Grade CC or CD w/ 11% ASI Maximum (40 W)
Transmission	C-3 transmission fluid

EXPORT SHIPPING INFORMATION (Approximate)

Machine — Including Lift Arms, Rims and Standard Tires with Compartment Less Cab. (No CaCl_2 or Cwt.).

Length 18 ft. 3 in. (5.56 m)
 Height 94 in. (2.39 m)
 Width 8 ft. 0 in. (2.43 m)
 Volume 1,144 cu. ft. (32.4 m³)
 Weight 18,335 lbs. (8,316 kg)

Bucket — 2 yd³ G.P.

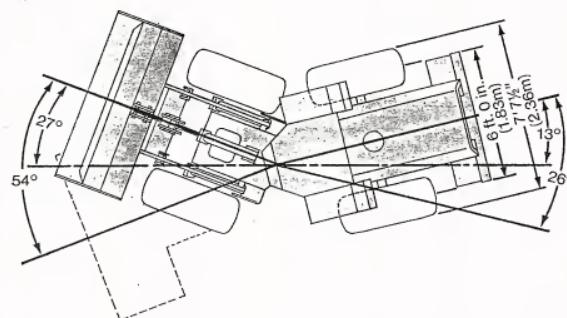
Length 40.50 in. (1.02 m)
 Height 46.00 in. (1.17 m)
 Width 96 in. (2.44 m)
 Volume 104 cu. ft. (2.95 m³)
 Weight 1,600 lbs. (726 kg)

ROPS Cab

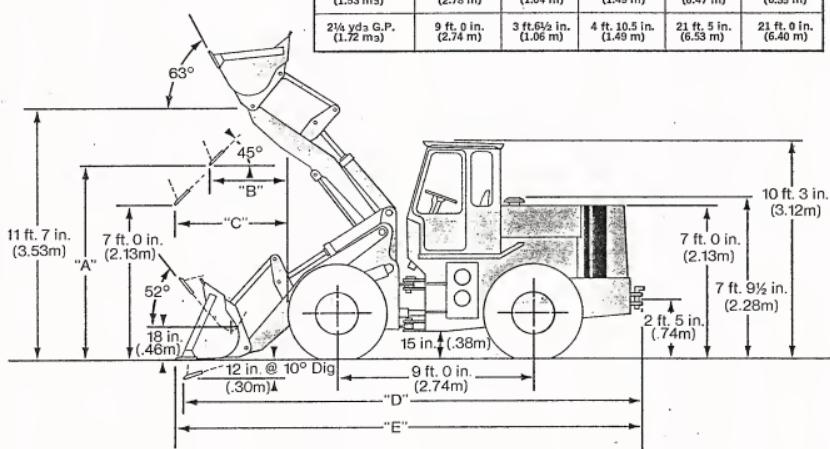
Length 51 in. (1.30 m)
 Height 77 in. (1.96 m)
 Width 46 in. (1.17 m)
 Volume 105 cu. ft. (2.97 m³)
 Weight 950 lbs. (431 kg)

CONVERSION CHART

1 mile	= 1,609 kilometres	1 lb.	= 4,448 newtons
1 foot	= 3048 metres	1 lb.	= 0.4536 kilograms
1 inch	= 25.4 millimetres	1 ft. lb.	= 1,356 newton-metres
1 U.S. Gal.	= 3.785 litres	1 ft. ³	= 28.35 litres
1 U.S. Gal.	= 0.8333 Imp. gals.	1 in. ³	= 6,452 centimetres ³
diesel fuel	= 7.3 lbs. (approx.)	1 in. ³	= 0.0164 litres
1 U.S. Gal.	= 8.3 lbs. (approx.)	1 ft. ²	= 16,387 millimetres ²
coolant	= 8.3 lbs. (approx.)	1 yd. ²	= 929 centimetres ²
1 HP	= 0.746 kW	1 yd. ³	= 0.836 metres ³
			= 0.7646 metres ³



BUCKET	A	B	C	D	E
2 yd ³ G.P. (1.53 m ³)	9 ft. 1.5 in. (2.78 m)	3 ft. 5 in. (1.04 m)	4 ft. 10.5 in. (1.49 m)	21 ft. 3 in. (6.47 m)	20 ft. 10 in. (6.35 m)
2 1/4 yd ³ G.P. (1.72 m ³)	9 ft. 0 in. (2.74 m)	3 ft. 6 1/2 in. (1.08 m)	4 ft. 10.5 in. (1.49 m)	21 ft. 5 in. (6.53 m)	21 ft. 9 in. (6.40 m)



STANDARD EQUIPMENT

Access Steps—Right and Left Side	Hoodsides
Alarm Audible—Low Air Pressure	Horn, Air
Alternator 40 amp	Lights, One Tail and Stop
Batteries—2 Twelve Volt	Lights, Two Front and Two Rear
Brakes	Muffler
Dual System	Reverse Alarm, Audible
Parking Brake System	ROPS Cab
Bucket Leveler—Adjustable	Floor Mats
Counterweight 700 lbs.	Front Wiper—Air
Drawbar Hitch Pin	Interior Dome Light
Fan Blower	Seat—6-Way Adjustable
Fan Screen	Seat Belt (SAE J386)
Fenders—Rear	Sound Insulation
Filters	Tinted Windows
Air Cleaner	Safety Locking Bar
Engine Lube Oil	Switch, Master Electrical Disconnect
Fuel (2)	Transmission Declutch
Hydraulic Oil	Transmission Neutral Start
Transmission Oil	
Gauges	
Air Cleaner Service Indicator	
Ammeter	
Dual Air Pressure	
Engine Coolant Temperature	
Engine Oil Pressure	
Fuel Level	
Hourmeter	
Hydraulic Tank Sight	
Torque Converter Oil Temperature	
Transmission Clutch Pressure	
Transmission Dipstick	

OPTIONAL EQUIPMENT

Air Conditioner	
Air Dryer	
Amber Rotating Light	
Battery—Cold Start	
Boom Kickout	
Bottom Guard	
Buckets	2 yds ³ (1.53 m ³) G.P.
	2 1/4 yds ³ (1.72 m ³) G.P.
Bucket Spillguard	
Bucket Teeth, Bolt On	
Cutting Edge, Bolt On For G.P. Buckets	
Defroster Fan	
Differential, NoSPIN (Rear Only)	
Fenders—Front	
Footlights, Cab Roof Mounted	
Headlight Guard	
Heater	
Hydraulic Controls for Front Attachments	
Logging Package	
Mirror, Rearview	
90 Amp Alternator	
ROPS Canopy	
Security Kit	
Signals, Turn, (4 Way Flashers)	
Supplemental Steering, Electric	
Suspension Seat	
Window, Rear Swing Out	
ALLIED ATTACHMENTS	
Quick Coupler	
1 1/4 yds ³ Side Dump Bucket	
1 1/4 yds ³ Multitask Bucket	
Log Forks	

OPERATING DATA — OPERATING WEIGHTS

NOTE: All dimensions, specifications and rating conform to or exceed SAE (Society of Automotive Engineers) Specifications J-732 (Specifications & Definitions) & J-742B (Bucket Rating) where applicable.

Heaped Capacity (S.A.E.)	2 yds ³ (1.53 m ³)	2 1/4 yds ³ (1.72 m ³)
Bucket Type	G.P.	G.P.
Struck Capacity	1.60 yds ³ (1.22 m ³)	1.85 yds ³ (1.42 m ³)
Bucket Width	96 in. (2.44 m)	96 in. (2.44 m)
Bucket Weight (Mass)	1,600 lbs. (726 kg)	1,640 lbs. (744 kg)
At Maximum Lift:		
Dump Clearance @ 45°	9 ft. 1 1/2 in. (2.78 m)	9 ft. 0 in. (2.74 m)
Overall Operating Hgt.	15 ft. 7 in. (4.75 m)	15 ft. 7 in. (4.75 m)
Reach to Tires @ 45°	3 ft. 5 in. (1.04 m)	3 ft. 6 1/2 in. (1.06 m)
Reach to Tires @ 45° @ 7 Ft. Dump Hgt.	4 ft. 10 1/2 in. (1.49 m)	4 ft. 10 1/2 in. (1.49 m)
Overall Length On Ground	21 ft. 3 in. (6.47 m)	21 ft. 5 in. (6.53 m)
Turning Diameter	19 ft. 0 in. (5.79 m)	19 ft. 1 in. (5.82 m)
Breakout Force	18,600 lbs. (82 733 N) (8 437 kg)	17,500 lbs. (77 840 N) (7 938 kg)
Static Tipping Load		
Straight Ahead	16,065 lbs. (7 287 kg)	16,032 lbs. (7 272 kg)
Full Turn	14,578 lbs. (6 612 kg)	14,548 lbs. (6 599 kg)
Operating Weight (Mass)		
Front	9,908 lbs. (4 494 kg)	9,972 lbs. (4 523 kg)
Rear	11,527 lbs. (5 228 kg)	11,503 lbs. (5 217 kg)
Total	21,435 lbs. (9 723 kg)	21,475 lbs. (9 741 kg)

Note: Static tipping load and operating weight (mass) includes ROPS Cab and 17.5 - 25 (I2PR) L-2 tires.

ADDITIONAL STABILITY INFORMATION

Tires	Operating Weight Change		Full Turn Tipping Load Change	
	Tires Only	With Hydroinflation	Tires Only	With Hydroinflation
17.5 - 25 (12PR) L-2	— 0 —	+1,182 lbs. (536 kg)	— 0 —	+1,495 lbs. (678 kg)
17.5 - 25 (12PR) L-3	+112 lbs. (50.8 kg)	+1,352 lbs. (613 kg)	+ 71 lbs. (32 kg)	+1,639 lbs. (743 kg)
17.5 - 25 (16PR) L-2	+ 64 lbs. (29 kg)	+1,246 lbs. (565 kg)	+ 41 lbs. (19 kg)	+1,535 lbs. (696 kg)
20.5 - 25 (12PR) L-2	+468 lbs. (212 kg)	+2,364 lbs. (1,072 kg)	+296 lbs. (134 kg)	+2,693 lbs. (1,222 kg)
20.5 - 25 (12PR) L-3	+804 lbs. (365 kg)	+2,700 lbs. (1,225 kg)	+508 lbs. (320 kg)	+2,906 lbs. (1,318 kg)

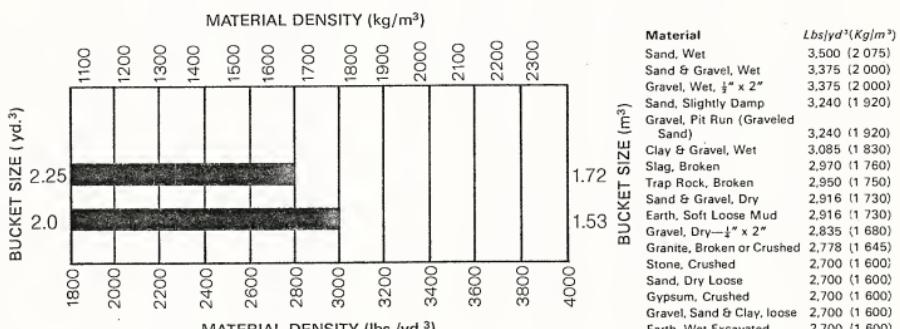
NOTE: Hydroinflation (75% fill CaCl_2 solution) in rear tires only.

ADDITIONAL DIMENSIONAL INFORMATION

Tire Size And Type	Vertical Dimensions Change	Reach At Max. Height Change	Machine Width	Vehicle Track
17.5 - 25 L-2	— 0 —	— 0 —	— 0 —	72 in. (1.83 m)
17.5 - 25 L-3	+ .5 in. (.02 m)	— 0 —	.4 in. (.01 m)	72 in. (1.83 m)
20.5 - 25 L-2	+3.2 in. (.13 m)	—2.8 in. (.11 m)	3.8 in. (.097 m)	72 in. (1.83 m)
20.5 - 25 L-3	+3.6 in. (.14 m)	—2.8 in. (.11 m)	4.1 in. (.104 m)	72 in. (1.83 m)

BUCKET SELECTION GUIDE 72-21B

Bucket recommendations shown above are based on a full SAE heaped load at the material density indicated. When selecting the proper bucket for a specific application, other factors must also be considered. These include loadability and heaping characteristics of the material, terrain and other pertinent job conditions.



Material	$\text{Lbs/yd}^3 (\text{Kg/m}^3)$
Sand, Wet	3,500 (2,075)
Sand & Gravel, Wet	3,375 (2,000)
Gravel, Wet, $\frac{1}{2}'' \times 2''$	3,375 (2,000)
Sand, Slightly Damp	3,240 (1,920)
Gravel, Pit Run (Gravelized Sand)	3,240 (1,920)
Clay & Gravel, Wet	3,085 (1,830)
Slag, Broken	2,970 (1,760)
Trap Rock, Broken	2,950 (1,750)
Sand & Gravel, Dry	2,916 (1,730)
Earth, Soft Loose Mud	2,916 (1,730)
Gravel, Dry— $\frac{1}{2}'' \times 2''$	2,835 (1,680)
Granite, Broken or Crushed	2,778 (1,645)
Stone, Crushed	2,700 (1,600)
Sand, Dry Loose	2,700 (1,600)
Gypsum, Crushed	2,700 (1,600)
Gravel, Sand & Clay, loose	2,700 (1,600)
Earth, Wet Excavated	2,700 (1,600)
Clay & Gravel, Dry	2,700 (1,600)
Clay, Wet Lumps	2,700 (1,600)
Limestone, Broken or Crushed	2,625 (1,555)
Gravel, Loose Dry	2,565 (1,520)
Sandstone, Broken	2,550 (1,510)
Earth, Moist Excavated	2,430 (1,440)
Earth, Loam, Dry Excavated	2,100 (1,245)
Coal, Anthracite, Broken	1,857 (1,100)
Clay, Dry Excavated	1,847 (1,095)
Clay, Dry Lumps	1,822 (1,080)
Coal, Bituminous, Broken	1,413 (840)

CITY OF FORT WAYNE

DEPARTMENT OF PURCHASES

Number One Main St., Ft. Wayne, Ind. 46802

INVITATION

Concussions, subject to the conditions on the reverse hereto, are requested on the following list of
merchandise, supplies, equipment or services, for the department as mentioned, with delivery to destination
as shown below. Concussions shall incide all charges for delivery, packing, etc. And/or your order as
Indicated below. 423-7037.

*Mail all replies and
correspondence, and to Attn of Aaron M. Gluck

DEPARTMENT OF PURCHASES

Room 940 Number One Main St., Ft. Wayne, Ind. 46802

REQUIRED FOR DELIVERY TO:

Department Street Department

1701 South Lafayette

Address Fort Wayne, Ind. 46803

Page 1 of 10

Ref. No. 930-G

Date June 6, 1980

Date wanted _____

Fund
Appropriation No. _____

RETURN ORIGINAL TO THE CITY—RETAIN DUPLICATE COPY FOR YOUR FILE

Closing

Time of Bids Thursday, June 26, 1980 at 11:00 A.M.

~~TAXES: THE CITY IS EXEMPT FROM FEDERAL EXCISE AND INDIANA STATE SALES TAX. THE CITY'S INDIANA SALES TAX EXEMPTION
CERTIFICATE NUMBER IS NO. 4444. PRICES SHOULD NOT INCLUDE THESE TAXES. See Instructions to Bidders No 10 on reverse hereto for details.~~

TAX EXEMPT (Unless otherwise indicated)

Quantity	Unit	Materials, Supplies, Equipment or Services	Unit Price	Total Amount
1		1980 Front End Loader as per attached Specifications, or equivalent. Questionnaire must be completed in full		
1		1980 John Deere 444 Loader 12 Month factory warranty. Immediate delivery. Price quoted is for unit in stock and subject to prior sale. Terms: Net 30 Days		\$33,512.00

Affirmative Action: One File: XXX Attached:

Bid Bond required EX 5% Performance Bond EX

See Instructions Item No. 16 on reverse side hereto.

Terms: No % cash discount if paid within days from delivery and acceptance of goods or completion of services.

PROPOSAL OR BID

In compliance with the above invitation for bids and subject to all conditions thereof, the undersigned offers and agrees, if this bid be accepted within a reasonable time from date of closing, to furnish any or all of the items or render such services upon which prices are quoted, in accordance with the specifications applying and at the prices and opposite each item.

Delivery of any or all of the items or completion of services, indicated shall be made within 5 days from receipt of order.

IMPORTANT

As delivery may be a deciding factor in the award of an order, it is important that bidders furnish the information requested above.

See Item

Tri-River Tractor, Inc.

Name of Company

For J.T. Rolleston President

Address 5400 Industrial Road

City Fort Wayne, Indiana

Date 6/26/80

SPECIFICATIONS QUESTIONNAIR

Bidders Proposal - To Be Completed
By the Bidder

1. Engine: John Deere diesel, 6- cylinder, 4 cycle, direct start, direct injection, naturally asperiated. 95 gross engine horsepower. Electrical system - 12 volt with alternator. 420 minute reserve capacity battery.
2. Torque Converter: Twin turbine. Torque multiplication 5.44 to 1.
3. Transmission: Power shift planetary. Four foward and two reverse gears. Top travel speed 22.5 m.p.h. Smooth shift transmission at full throttle and under load.
Rear axle disconnect for better roadability.
4. Differentials: No-spin front differential. Rear axle conventional.
5. Axles: Heavy duty with inboard planetary final drives. Fixed front axle. Rear axle oscillates 22-degree total. Four wheel drive.
6. Steering: Full power steering. 40 degree articulation left or right. Turning radius 13 feet 10 inches. Articulation locking bar.
7. Brakes: Power actuated, 4 wheel, inboard mounted wet disc. Foot operated by either right or left pedal. Parking brake 10" X 1.5" expanding shoe on transmission output shaft. Hand operated with warning light and buzzer. Operator choice braking.
8. Loader Linkage: 10 hour service interval.
9. Hydraulic System: Pump, loader 39.5 g.p.m. @ 2400 r.p.m. 2250 p.s.i. relief valve pressure setting. Steering and brake pump: 26 g.p.m. @ 2200 engine r.p.m. 2000 p.s.i. Cylinder rods double acting, heat treated, chrome-nickle plated and polished.
10. Hydraulic Controls: Single lever loader and bucket control. Automatic boom height and bucket level control.

11. Service Capacities: See specification sheet.

12. Bucket Size: Two yard general purpose. Breakout force 15,735 lbs. Dump clearance 8' 11". Static tipping load straight 12,835 lbs. Full-turn 11,145 lbs.

13. Standard Equipment: Air cleaner, dry type with safety element. Adjustable bucket seat, access ladder's 61-amp alternator, horn, engine side shields, lights, muffler, neutral safety start, ROPS cab fully enclosed, transmission safety lock, vandal protection, front fenders, ether starting aid, drawbar.

14. Optional Attachments: Included on machine: Adjustable bucket leveler, back-up alarm, loaded rear tires, heater and defroster, fully enclosed ROPS cab, turn signals with hazard switch. Attachment not included but available multi-purpose bucket & hyd.

15. Tires: Calcium chloride filled rear. 15.5 X 25 8-ply L-2

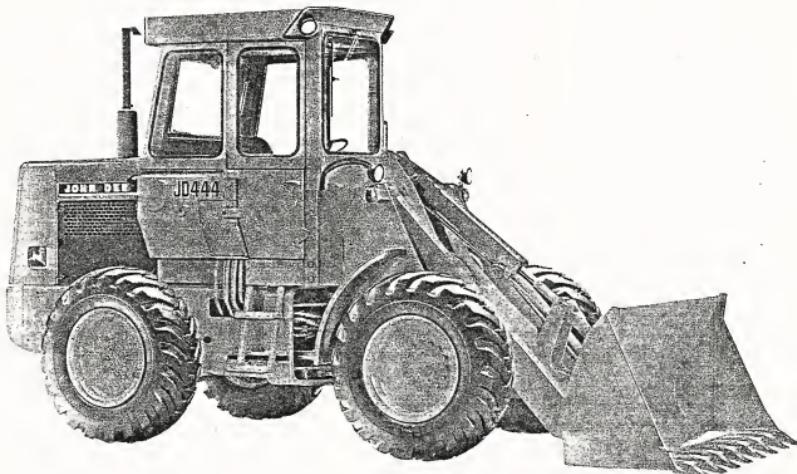
16. Tire Size: 15.5 X 25 8-ply L-2 Tread 5' 10"

Width over tires 7' 1.5"

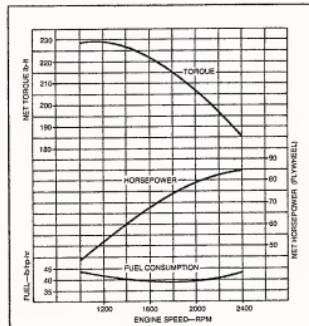
NOTE! The above information is only a summary of specifications. For complete detailed specifications see the enclosed manufacturers specification sheet which is a part of this bid.



JD444 LOADER



ENGINE PERFORMANCE



FEATURES

85 SAE net hp (63.4 kW)

4-wheel drive

1½ cu. yd. general purpose,
3 cu. yd. light materials, or 1½ cu. yd.
multipurpose bucket

Twin-turbine torque converter with
Power Shift transmission. 4 speeds
forward, 2 reverse

Power steering. Articulated frame

4-wheel wet-disk power brakes and
parking brake

Inboard planetary final drives

Single-lever loader control w/automatic
return to dig

Brake-actuated transmission disconnect

Roll-over protective structure (ROPS) canopy

ADD VERSATILITY WITH:

Backhoe

JD444 LOADER SPECIFICATIONS

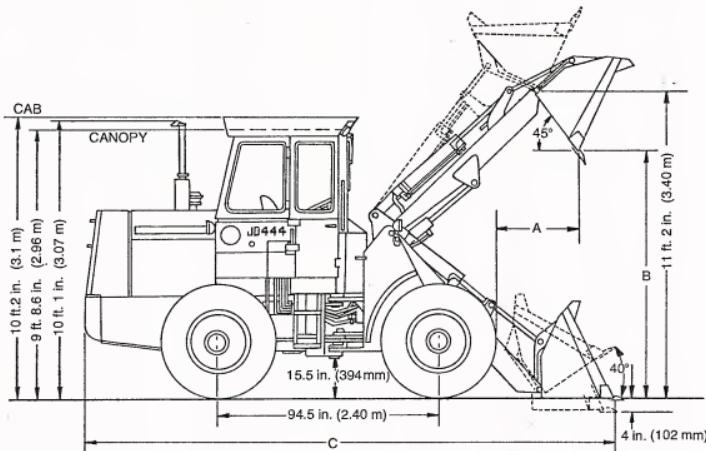
(Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with ICED and SAE Standards. Except where otherwise noted, specifications are based on a machine equipped with all standard equipment, 15.5-25, 8-ply loader-tread tires, ROPS cab, full fuel tank, and 175 lb. (79.4 kg) operator.)

Power (@ 2400 engine rpm):	SAE	DIN	
Gross	95 hp (70.8 kW)		
Net	85 hp (63.4 kW)	90.5 PS	
Net engine flywheel power is for an engine equipped with fan, air cleaner, water pump, lubricating oil pump, fuel pump, alternator, and muffler. Gross engine power is without fan. Flywheel power ratings are under SAE standard conditions of 5000 ft. altitude and 85°F. temperature and DIN 70 020 standard conditions of 76 mm Hg barometer (sea level) and 20°C. temperature. No derating is required up to 5000 ft. (1524 m) altitude.			
Engine: John Deere diesel, 6-cylinder, 4-stroke cycle			
Bore and stroke	4.02x4.33 in. (102x110 mm)		
Piston displacement	329 cu. in. (5.922 L)		
Compression ratio	16.2 to 1		
Maximum torque @ 1100 rpm	228 lb-ft (309 Nm) (31.5 kg-m)		
NACC or AMA (U.S. Tax) horsepower	58.8		
Lubrication	Pressure system w/full-flow filter		
Cooling	Pressurized w/thermostat and controlled bypass		
Fan	Blower		
Air cleaner w/restriction indicator	Dry		
Electrical system	12-volt w/alternator		
Batteries (two 6-volt)	Reserve capacity: 420 minutes		
Torque Converter:			
Type	Twin-turbine		
Torque multiplication	5.44 to 1		
Transmission:			
Power Shift planetary			
Forward Speeds	mph	km/h	
1	0-2.8	0-4.5	
2	2.8-6.5	4.5-10.5	
3	0-10.7	0-17.2	
4	10.7-22.5	17.2-36.2	
Reverse Speeds			
1	0.3-8	0-6.1	
2	3.8-8.5	6.1-13.7	
Note: Shift from 1st to 2nd and 3rd to 4th is automatic.			
Differentials:			
Front and rear	Standard		
Drive Axles:			
Inboard-mounted planetary gears to each wheel. Front axle fixed. Rear axle oscillates 22-degrees total (13.5 inches (343 mm) vertical travel at center of tire).			
Brakes:			
Service	Power actuated, 4-wheel, inboard-mounted wet disk.		
Foot-operated by either right or left pedal.			
Parking	10x1.5 inch (254x38 mm) expanding shoe on transmission output shaft. Adjustable, hand-operated, with warning light and buzzer.		
Steering:			
.....	Full power steering. Frame articulated 80 degrees by two hydraulic cylinders. Turning radius of 13 feet 10 inches (4.22 mm).		
Hydraulic Systems:			
Loader functions	Independent engine-driven vane pump delivers 39.5 gpm (2.49 L/s) at 600 psi (4137 kPa) (42.2 kg/cm ²) and 2400 engine rpm.		
2250 psi (15 514 kPa) (158.2 kg/cm ²) relief valve pressure setting.			
Control	Single-lever, dual hydraulic valve		
Optional triple hydraulic valve with separate lever.			
Steering and brakes	Engine-driven, 8-piston, variable-displacement pump delivers 26.0 gpm (1.64 L/s) at 2200 engine rpm and 2000 psi (13 790 kPa) (140.6 kg/cm ²). Maximum system pressure is 2400 psi (16 548 kPa) (168.7 kg/cm ²).		
Loader hydraulic operating cycle times at full throttle:			
Raise	5.6 sec.		
Dump	1.5 sec.		
Lowering: float	3.7 sec.		
power	3.6 sec.		
Hydraulic Cylinders:	Bore	Stroke	
Boom, two	5.25 in. (133 mm)	22.26 in. (565 mm)	
Bucket, one	5.25 in. (133 mm)	25.28 in. (642 mm)	
Cylinder rods	Ground, heat-treated, chrome-nickel-plated, polished		
Boom and bucket cylinder rods	2.25 in. (57 mm) dia.		
Tires:			
15.5-25, 8-ply-rating, loader tread			
15.5-25, 12-ply-rating, loader tread			
13.00-24, 8-ply-rating, grader tread			
Wheel Treads:			
Front and rear	70 in. (1.78 m)		
Capacities:	U.S.	Imp.	Liters
Cooling system	32 qt.	26.7 qt.	30.3
Fuel tank	40 gal.	33.3 gal.	151.4
Crankcase	1 qt.	9.2 qt.	10.4
Crankcase, including filter	12 qt.	10.0 qt.	11.4
Transmission case and filters	4 qt.	3.3 qt.	37.9
Front and rear differential	17 qt.	14.2 qt.	16.1
Loader hydraulic sump	52 qt.	43.3 qt.	49.2
Additional Standard Equipment:			
Adjustable cushioned seat			
Front fenders			
Gages:			
Transmission oil temperature			
Transmission oil pressure			
Pel			
Coolant temperature			
Engine oil pressure			
Electric hourmeter			
Voltmeter			
Loader hydraulic system indicator			
Key switch			
Pushbutton safety start			
Cigaret lighter			
Parking brake warning light and buzzer			
Transistorized voltage regulator			
Instrument panel cover w/lock			
Lights, driving			
Horn			
Fuel filter			
Automatic return to dig			
Vertical muffler w/rain cap			
Rear bottom guard			
Hand grips			
Fixed drawbar			
ROPS canopy and seat belt			
Antifreeze			
Precleaner			
Ether starting aid			

OPERATING INFORMATION	BUCKET		
	General purpose	Light materials	Multipurpose
Capacity, heaped, SAE	1½ cu. yd. (1.15 m ³)	3 cu. yd. (2.29 m ³)	1½ cu. yd. (1.15 m ³)
Capacity, struck, SAE	1.22 cu. yd. (0.93 m ³)	2.49 cu. yd. (1.9 m ³)	1.22 cu. yd. (0.93 m ³)
Bucket width	88 in. (2.23 m)	96 in. (2.44 m)	88 in. (2.23 m)
Bucket weight	1200 lb. (544 kg)	1920 lb. (871 kg)	2295 lb. (1041 kg)
Breakout force, J732C SAE Standard using bucket hinge pin as pivot point	17,735 lb. (79.49 kN) (8045 kg)	11,770 lb. (52.26 kN) (5339 kg)	15,100 lb. (67.68 kN) (6849 kg)
Tipping load, straight	12,835 lb. (5822 kg)	12,095 lb. (5486 kg)	10,690 lb. (4849 kg)
Tipping load, 40-deg. full turn, SAE	11,145 lb. (5055 kg)	10,405 lb. (4720 kg)	9140 lb. (4146 kg)
Turning clearance, outside bucket	32 ft. (9.76 m)	32 ft. 10 in. (10.02 m)	32 ft. (9.76 m)
Loader operating weight	18,560 lb. (8419 kg)	19,280 lb. (8745 kg)	19,655 lb. (8916 kg)

Maximum recommended material weight, lb. per cu. yd. (kg/m ³)			
All standard equipment and 15.5-25, 8-ply-rating tires	1½ cu. yd. (1.15 m ³) General purpose	3 cu. yd. (2.29 m ³) Light materials	1½ cu. yd. (1.15 m ³) Multipurpose
Loader less cab or canopy	3040 (1603)	1410 (836)	2469 (1464)
Loader with canopy	3190 (1891)	1485 (881)	2605 (1545)
Loader with cab	3270 (1940)	1525 (904)	2680 (1590)

Adjustments to operating weights and tipping loads:			
Add (+) or deduct (–) lb. (kg) as indicated for loader equipped with:	Loader Operating Weight	Tipping Load Straight	Tipping Load, 40-deg. Full Turn, SAE
Less ROPS cab	–950 lb. (431 kg)	–850 lb. (386 kg)	–785 lb. (356 kg)
ROPS canopy in lieu of ROPS cab	–320 lb. (145 kg)	–310 lb. (141 kg)	–280 lb. (127 kg)
13.00-24, 8-ply-rating, grader tread tires	–380 lb. (172 kg)	–245 lb. (111 kg)	–215 lb. (96 kg)

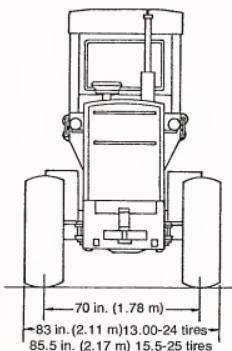


BUCKETS	DIMENSIONS		
	A	B	C
1 1/2 cu. yd.	35.2 in. (894 mm)	8 ft. 11 in. (2.72 m)	19 ft. (5.80 m)
3 cu. yd.	44.1 in. (1120 mm)	8 ft. 2 1/2 in. (2.49 m)	20 ft. 1 in. (6.12 m)
1 1/2 cu. yd. multipurpose	35.15 in. (893 mm)	8 ft. 3 in. (2.51 m)	19 ft. 11 3/4 in. (6.08 m)

Special Equipment:

ROPS cab and seat belt
 ROPS quiet cab
 Work lights
 Reverse warning alarm
 Triple loader hydraulic valve
 Bucket teeth
 Engine coolant heater
 Center and front bottom guard
 License plate bracket
 Defroster fan
 Automatic boom height control
 SMV emblem

Auxiliary cutting edges
 Engine side shields
 Heater
 Flashing and turn signal lights
 Rear axle disconnect
 No-Spin front differential
 Auxiliary spill guard
 Adjustable suspension seat
 Turbocharged altitude compensator
 ROPS cab w/air-conditioning,
 seat belt, front and rear wipers,
 work lights and alternator



Tri-River Tractor, Inc.

Fort Wayne, IN

JOHN DEERE
4 WHEEL
DRIVE
LOADERS



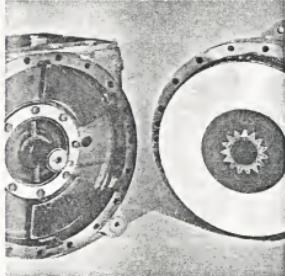
WHEN THE WORK
IS LONGER
THAN THE DAY

JOHN DEERE **FEATURES** PUT YOU AHEAD. BY THE BUCKET. BY THE HOUR. BY THE JOB.

There can be no minor parts, components or engineering details in a John Deere Loader. Every feature—from the bucket on back—is designed and finished to meet the demands of production loading work. Just as they received the attention of John Deere design engineers—the loader frame, engine, power train, hydraulics, operator's environment and controls all rate your critical inspection now. On these pages and at our dealership, we believe you'll like what you find in these machines. On a production job, we believe you'll like what you get out of them.

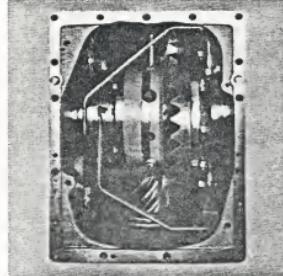


Large planetary final drives are mounted inboard, where they can stay clean and cool in a large oil bath.



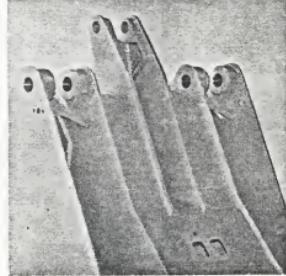
Self-adjusting disk brakes are sealed in the planetary gear housing for complete protection from dirt and other contamination. Each wheel uses three disk pads for a generous braking surface. Brakes run in a constant oil bath for long service life.

Hit a soft spot? No problem. JD844 has a hydraulic differential lock; on all others, a front-mounted No-Spin differential kicks in when one wheel begins to spin on ice or mud. Restores traction and power automatically, even under a full load or in a tight turn. Unlocks as soon as even traction is regained.

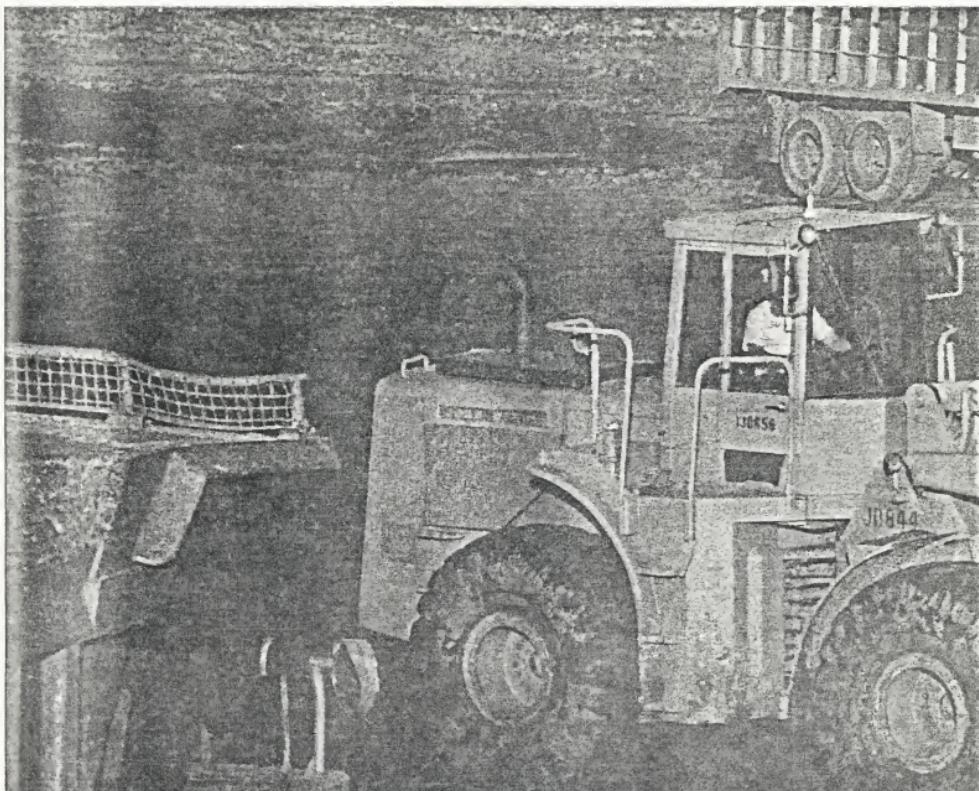


Oscillating rear axle adds increased stability on soft, uneven ground. Gives smoother riding over bumps, dips and rocks. And no external grease fittings here means you'll never have to crawl under the loader to grease the cradle assembly.

Get cycles off to a fast start. Return-to-dig mechanism automatically repositions the loader bucket after each load. Lets your operator concentrate on lining up the next load, instead of resetting the bucket. Saves time between loads. And it's standard on all models.



At the working end of every John Deere Loader an all-welded, reinforced equipment frame provides more strength with less weight than solid frame construction. Line boring after welding assures the proper pin alignment that provides maximum wear.



"I like single-lever loader control. Once you catch on to it, it's a lot easier to use than the others!" Single-lever loader control lets you control boom and bucket action with just one lever. Logical, straightforward operation makes a new operator feel at home fast.



"The engine oil drain plug is easy to get to..." Engine oil plug is located behind the left rear tire. Convenient location means no more climbing under the machine to change the oil.

MATCH YOUR BIG JOBSITE DEMANDS

WITH THE NEW JD844

Push productivity to a new high level—bring on the advanced JD844. Put both big-capacity performance and today's state-of-the-art technology to work on your jobsite.

New, advanced features Now you can adjust boom height and kickout all with a fingertip-controlled dial. Lock out the front differential on command to even up traction on ice or mud. And disconnect the transmission on-the-go to speed the lift while you ease into dump.

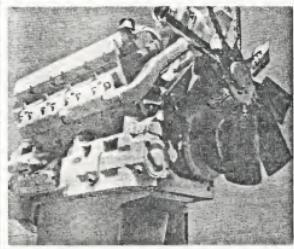
Capacity in depth With over 26 tons of total weight and 260-net-hp (216 kW) of turbocharged diesel engine, you've got the right balance of capacity and power to stay on top of demanding production schedules. Five bucket options—4½ to 7 cubic yards (3.44 m³ to 5.35 m³)—and

over 15 tons of breakout force, equip you to handle just about any job.



Here's what one operator has to say about the new JD844.

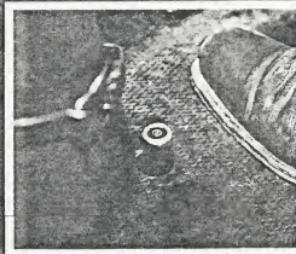
Operator Jack Gibbs of Addington Brothers Mining, Inc., Ashland, Kentucky, uses the JD844 for chopping, cleaning, stripping and loading coal. On an average day, Gibbs uses the JD844 to load about 150-400 to 50-ton loads.



"The engine seems to have plenty of power and torque," turbocharged 955-cubic-inch (15.62 L) John Deere diesel develops 260 net hp (194 kW) at 2100 rpm. This new, fuel-efficient engine packs all the torque, power and performance you need to cut big jobs down to size.

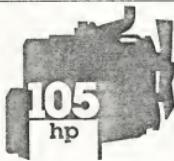
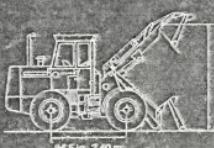
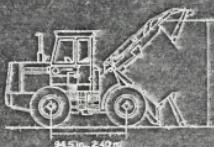
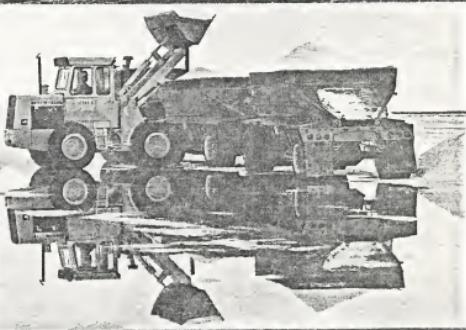


"Steering is easy, too. You can take one finger to steer it..." Full-time power steering plus 74 degrees of total frame articulation makes the JD844 easy to handle in tight spots. Turns in only 19 feet 6 inches (5.92 m).



"You can lock up all four wheels for better traction when you need it." Locking front differential lets you lock out the front axle at any time for better traction in slippery spots. Just a tap of the foot on the optional floor-mounted switch locks or unlocks the front differential on the go.

GET BEHIND THE RIGHT HORSEPOWER AND CAPACITY TO HANDLE YOUR APPLICATION



Whether you need a 4-wheel-drive loader to strip coal, load limestone, reclaim land or work construction, John Deere builds one for you. In the right capacity and horsepower class to match your operation.

Choose from four diesel-powered models—85 to 260 net hp (63.4 to 194 kW)—with lift heights

JD442 • 85 SAE net hp (63.4 DIN-PS)
• 4-wheel drive • Twin-turbo torque converter with Power Shift transmission • 4 speeds forward, 2 reverse • Power steering
• Articulated frame • 4-wheel wet-disk power brakes and parking brake • Inboard planetary final drives • Single-lever loader control w/automatic return to dig • Brake-actuated transmission disconnect • Roll-over protective structure (ROPS) canopy

JD544-B • 105 SAE net hp (106.5 PS)
• 4-wheel drive • Twin-turbo torque converter with Power Shift transmission • 4 speeds forward, 2 reverse • Power steering
• Articulated frame • 4-wheel wet-disk power brakes and parking brake • Inboard planetary final drives • Single-lever loader control w/automatic return to dig • Brake-actuated transmission disconnect • No-Spin front-rate differential • Vandal protection • Roll-over protective structure (ROPS) w/cab and tinted safety glass

from 11 feet 2 inches (3.40 m) to more than 13 feet (4 m).

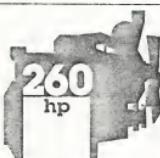
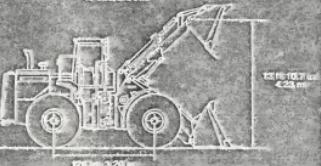
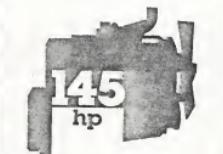
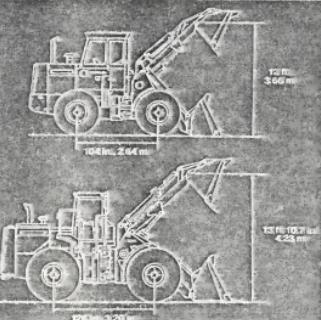
Select the right bucket from a wide range of bucket options. And put together the best working combination to handle your kind of work.

LOAD FROM 1.5 TO 7 CUBIC YARDS, OR CHOOSE A BUCKET IN BETWEEN

Wet sand. Heavy rock or light material. No problem. John Deere makes a bucket to fill your needs. All John Deere loader

buckets feature high-carbon wraparound cutting edges, bolt-on teeth and box-constructed spill sheets for excellent strength and durability. Sizes range from 1.5 cubic yards (1.14 m³) for the JD444 to 7 yards (5.35 m³) for the JD844.

	Bucket Sizes		
JD444	1½ cu.yd. (1.14 m ³)	3 cu.yd. (2.29 m ³)	1½ cu.yd. (1.14 m ³) multipurpose
JD544-E	1½ cu.yd. (1.14 m ³)	2 cu.yd. (1.52 m ³)	3 cu.yd. (2.29 m ³) 1½ cu.yd. (1.14 m ³) multipurpose
JD644-E	2½ cu.yd. (1.91 m ³)	3 cu.yd. (2.29 m ³)	4½ cu.yd. (3.44 m ³) 2½ cu.yd. (1.91 m ³) multipurpose
JD844	4½ cu.yd. (3.44 m ³)	5 cu.yd. (3.62 m ³)	5½ cu.yd. (4.20 m ³) 7 cu.yd. (5.35 m ³) 4½ cu.yd. (3.44 m ³) spade nose



JD444-E • 145 SAE net hp (1475 PS) • 4-wheel drive • Twin-turbo torque converter with Power Shift transmission • 4 speeds forward, 2 reverse • Power steering • Articulated frame • 4-wheel power wet-disk brakes and parking brake • Inboard planetary final drives • Single-lever loader control with electronic return-to-dig • Brake-activated transmission disconnection • No-Spin front axle differential • Vandal protection • Roll-over protective structure (ROPS) w/cab and tinted safety glass.

JD844 • 260 SAE net hp (194 kW) • Power Shift transmission • 4 speeds forward, 3 reverse • Power steering • Articulated frame • 4-wheel wet-disk power brakes • Inboard planetary final drives • Single-lever loader control with electronic return-to-dig • Brake-activated transmission disconnection • Hydraulic-locking front axle differential • Vandal protection • Roll-over protective structure (ROPS) w/cab and tinted safety glass.

CLIMB INTO ALL-AROUND COMFORT, VISIBILITY AND CONTROL

Suddenly the day seems shorter. The work goes faster. And you go home less rattled from engine noise, bumps and vibrations.

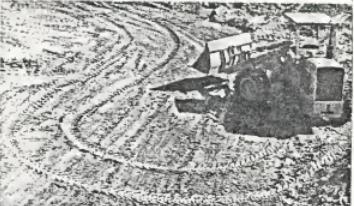
The reason: John Deere builds the machine around an operator's need for comfort and control.

Isolated engine mounting on four rubber cushions helps dampen vibrations for smoother riding. A

backlit instrument panel gives vital information at a glance. And an all-conforming, fully-adjustable seat helps you settle in for a full day's work.

Choose a ROPS canopy, ROPS cab or a special ROPS quiet cab. And discover the productive difference human engineering makes.

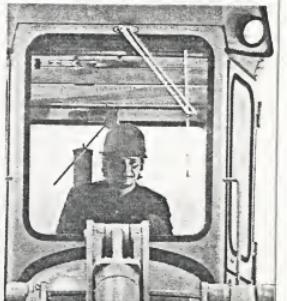




Turn tight! All John Deere loaders are easy to handle in close quarters. Even the largest, JD844, turns in a tight 19 feet 5 inches (5.92 m). The JD644-B uses 15 feet 5 inches (4.70 m). And both the JD444 and JD544-B take only 13 feet 10 inches (4.22 m) for a complete turn.



Power Shift transmission and torque converter provides the operating speeds and quick reversing you need for efficient production.



Take a good look around. In a John Deere you can. Through the wide, unobstructed windshield you see the loader bucket in dig position. You also have a good view of all four wheels for the kind of visibility needed in tight spots.



Get comfortable. Operator's seat is fully-padded and features an extra high backrest and armrests to help fight fatigue. Seat is fully adjustable and is mounted on the engine frame for less vibration and better visibility.

GET THE MOST FROM YOUR LOADER- USE IT WISELY



Here are some general operating tips for 4-wheel drive loaders. Some may just serve as reminders, others may be new to you. In any case, they should help you do a better job while helping to protect you and your machine.

- Drive slowly in congested areas; over rough terrain and on slopes. ● Park loaders on level ground or across a slope.
- Stay clear of the hinged area if engine is running or if steering wheel is being moved. Even with the engine off, moving the steering wheel on accumulator-equipped machines may cause rapid pivot of wheels and frame.
- Never work under a raised bucket. Also, be sure you don't lift a loaded bucket over other workers or truck cabs. ●

Disconnect battery cables before making adjustments on engine or electrical equipment.

- Connect lock bar to both frames when working around pivot area of loader. ● Don't fill fuel tank when engine is hot or running. ● Don't use the steering wheel as a handhold when getting on and off the loader. ● Increase power gradually when pulling a heavy

load or when driving out of a ditch or excavation. ● Lower the bucket to the ground when loader is unattended. ● Keep a fire extinguisher in the loader. Be sure it is properly maintained and that you are familiar with its use. ● Be sure your backup alarm is in working order. ● Report or repair any machine defects. Even minor ones can become serious.

Dura-Max® Cutting Edges...

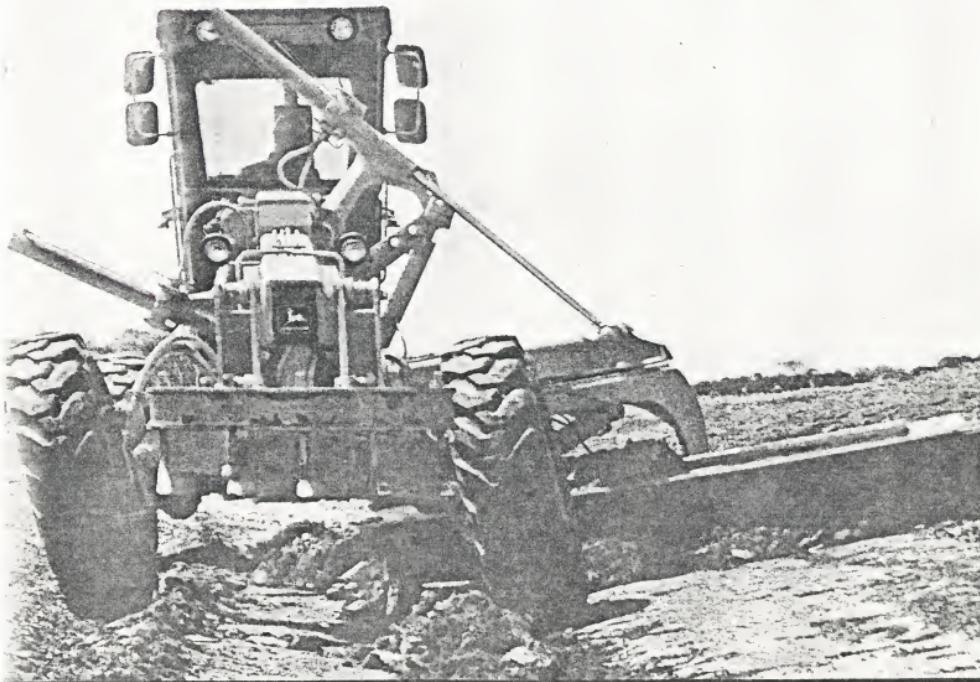
STRENGTH HARDENED TO THE CORE

The name Dura-Max™ says it all. It's the most durable motor grader cutting edge offered by John Deere. With maximum life, low operating costs and a 100 percent guarantee against breakage, these outstanding cutting edges wear up to three times longer than conventional carbon-steel edges. That can mean savings of more than 50 percent in edge purchase costs alone, not including the savings you realize from fewer blade changes and fewer bolts. And if a Dura-Max edge ever breaks we'll give you another one... free. What makes the Dura-Max such

a tough edge? It's heat treated throughout, not just surface-hardened. Tests show a Brinell hardness of 429 to 534 on the surface and at least 429 at the core. You get approximately the same strength at the blade's center as on the surface.

Ask your dealer for more information on the right blade edge size for your motor grader. They fit any brand. Look for the distinctive trademark on each blade.

DURA-MAX™



ENGINE SAFETY KIT

Dirt, rust and other contaminants can reduce engine efficiency and the life of your engine. Protect your equipment right with Torq-Gard Supreme® Engine Oil and with John Deere Filters.

Torq-Gard Supreme is not just another motor oil in a John Deere can. It's specially blended to match the needs of John Deere engines and has been tested to work better in them than any other heavy duty motor oil.

John Deere Filters are specified by the same engineers who design John Deere equipment. The design and filtration ability is then tested by our reliability department. Materials are selected that will give the filter top efficiency. They're the right filters for top protection.

Keep your engine running smooth. Use Torq-Gard Supreme and John Deere Filters.



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JD444 LOADER



JD444— The 1½-yard loader with benefits like the big ones

Like the larger JD544-B and JD644-B, the JD444 comes equipped with the high-performance features a 4-wheel-drive loader needs to deliver top production.

Start with the engine. It's a high-torque-reserve, 85-net-horsepower John Deere diesel that has been field proved in other John Deere machines.

The torque-converter Power Shift transmission offers you four forward and two reverse speed

ranges with a top travel speed of 22.5 miles per hour. You can reverse direction of travel smoothly at full throttle and under load.

Single-lever loader control handles all loader functions.

Self-leveling bucket and automatic return to dig are standard equipment. You also can specify automatic boom height control.

Position-responsive power steering, 4-wheel wet-disk brakes that never need adjusting, and inboard planetary final drives are all part of the package.

For operator comfort and safety, the JD444 comes equipped with a ROPS canopy and seat belt.

These are only a few of the benefits the JD444 has to offer. Spend some time looking through this brochure, then visit your John Deere dealer and let him demonstrate what a JD444 can do for you.





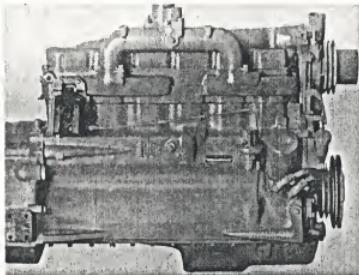
JD444

JOHN DEERE

Here's a power train as reliable as the name it carries

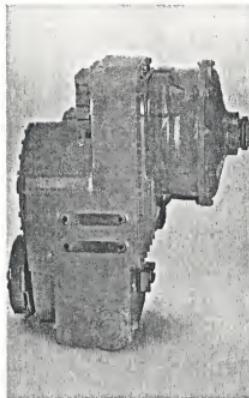
Reliability was built into the JD444 Loader long before the nameplate ever went on. All major components have been thoroughly tested and field proved. We're using them in other John Deere machines, too. Not only do you get the benefits of proved reliability, you also have the advantage of commonality among parts. Many JD444 components are the same as those in other John Deere equipment you may own. Overall reliability and parts interchangeability—just two more benefits the JD444 can give you.





The JD444's 85-*SAE*-net-hp engine, also used in the JD504-A Skidder and JD570-A Motor Grader, is a high-performance 6-cylinder diesel. It has a 329-cubic-inch displacement, 4.02x4.33-inch bore and stroke, and a compression ratio of 16.7 to 1.

This engine is designed to run cool. A pressurized oil-spray system cools pistons and cylinder walls. Special plasma processing of compression rings gives them superior scuffing resistance and excellent wear characteristics. In addition, a heavy-duty water pump circulates nearly 80 gpm.



The JD444's twin-turbine torque converter with Power Shift transmission delivers the punch to move big loads easily. There's no lost cycle time, no wasted motion, because you can change direction of travel smoothly at full throttle and under load.

A precise torque converter match gives a high torque output and rim-pull so you move fast on inclines, get more power at the cutting edge, and eliminate luggin down under heavy load.

A single shift lever lets you move smoothly through four forward speed ranges with just two lever movements, or through two reverse speed ranges with just one movement of the lever. Top travel speed is 22.5 miles per hour.



Everything's inboard. Large planetary final drives are mounted next to the differential. They transmit power to the wheels evenly, and they cushion the power train against shock loads.

Optional No-Spin locking front differential gives positive traction under all operating conditions. If one wheel spins out on ice or mud, the other automatically takes over and keeps you moving. When traction is restored to both wheels, the differential unlocks itself.

Power wet-disk brakes, also next to the differential, never need adjusting. Since they're inboard, they're sealed from all outside contaminants. Smooth, effective 4-wheel braking can be achieved by depressing either of two pedals.



Simple controls make JD444 an easy operator

You don't have to be a pro to handle a JD444 Loader. With John Deere's simple control system, learning comes easily. Single-lever control is a natural, because it works right along with your natural responses.

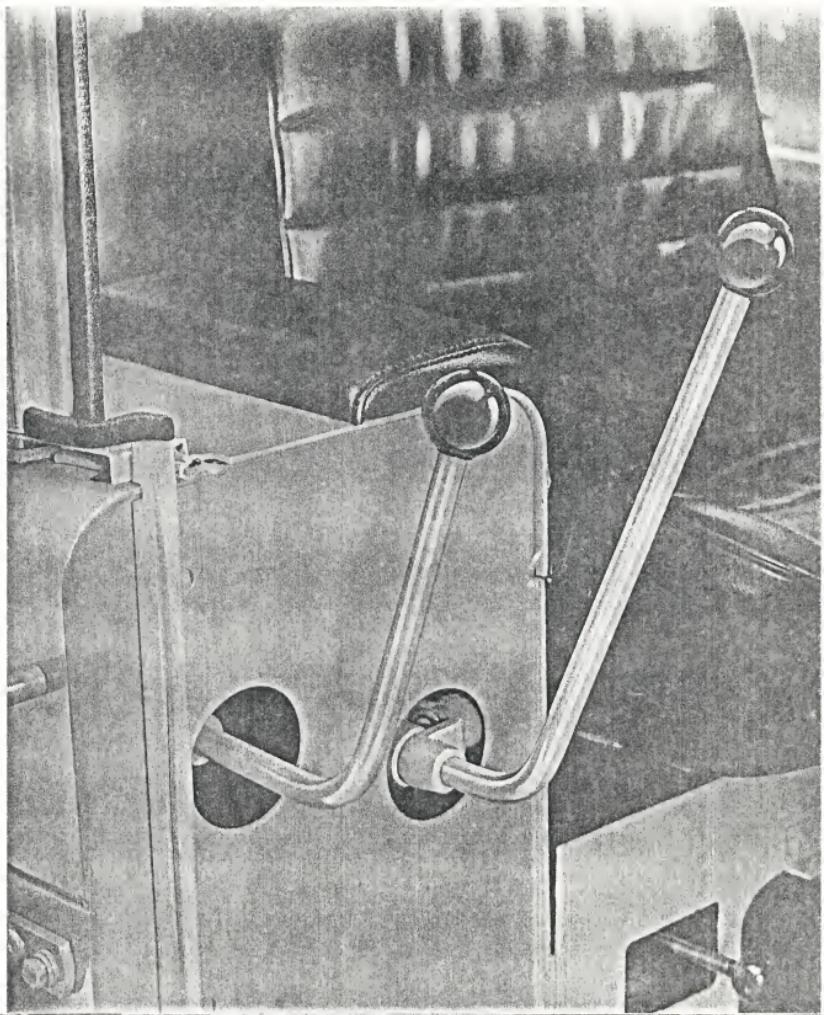
To lower the boom, push the lever forward. To raise it, pull back. To dump, push right. To roll the bucket back, pull left. It's that simple.

To make things easier, self-leveling bucket, float, and automatic return to dig are standard equipment. A second optional lever takes care of the clam function for the multipurpose bucket.

You also have the option of automatic boom height control. Just preset where you want the boom to stop during the loading cycle and the action is automatic.

Put all of these benefits together with position-responsive power steering and single-lever shift control and you're in for easy, productive operation.

Single-lever control takes care of all standard loader functions. Optional second lever controls functions of the multipurpose bucket.



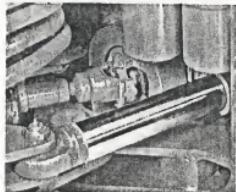
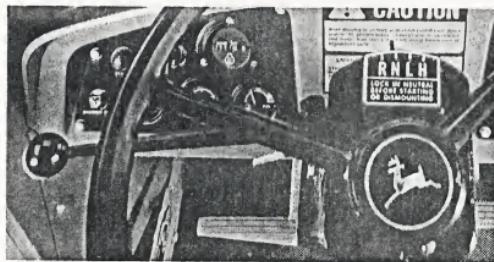
Optional automatic boom height control lets you preset the boom for full, intermediate, level, or grading heights so you can be more efficient at whatever type of work you're doing.



Single-lever shifting lets you put the JD444 through four forward and two reverse speeds with a minimum of effort. Top travel speed is 22.5 miles per hour.



Automatic return to dig repositions the bucket for you so you get cycles off to a faster start.



Big double-acting hydraulic steering cylinders provide 80 degrees of smooth articulation so you can easily maneuver the JD444 within a 13-foot 10-inch turning radius.



Transmission disconnect lets you disconnect the transmission during heavy loading or excavating so that all engine power can be used by the loader hydraulics for extra pryrof power.



CAUTION

When strapping on exclusive "jacket" handle control, make certain seat belt is fully extended. Strapping should always precede gear and brake. Brake retarding is a full driving function during pre-engagement cycle.

LOCK IN NEUTRAL
BEFORE STARTING
OR DISMOUNTING



Full-scale operator comfort—you choose what suits you best

Keeping an operator comfortable is an important engineering objective at John Deere. That's why all John Deere articulated 4-wheel-drive loaders, including the JD444, give you a choice of the ROPS canopy, ROPS cab, or a specially designed ROPS quiet cab. You choose the one that best fits your needs.

All John Deere operator's compartments are designed for maximum operator efficiency. All controls are easy to reach and easy to operate. For example, all standard loader functions can be handled with a single lever.

A single shift lever gives you four forward speed ranges with only two movements. For reverse, one lever movement gives you two speed ranges.

All nonglare, universal-system gauges are logically grouped and easy to read. They include: transmission oil temperature, transmission oil pressure, fuel level, coolant temperature, engine oil pressure, and voltmeter. Key switch, pushbutton safety start, cold-weather starting aid button, cigarette lighter, and parking brake warning light and buzzer round out the instrument panel.

John Deere's specially designed seat fully adjusts to fit just about any size operator. Thick foam padding, extra-high backrest, and armrests will keep him comfortable all day long. Since the seat is mounted on the engine frame, the ride is smooth, visibility is better, and he's away from the loader linkage.

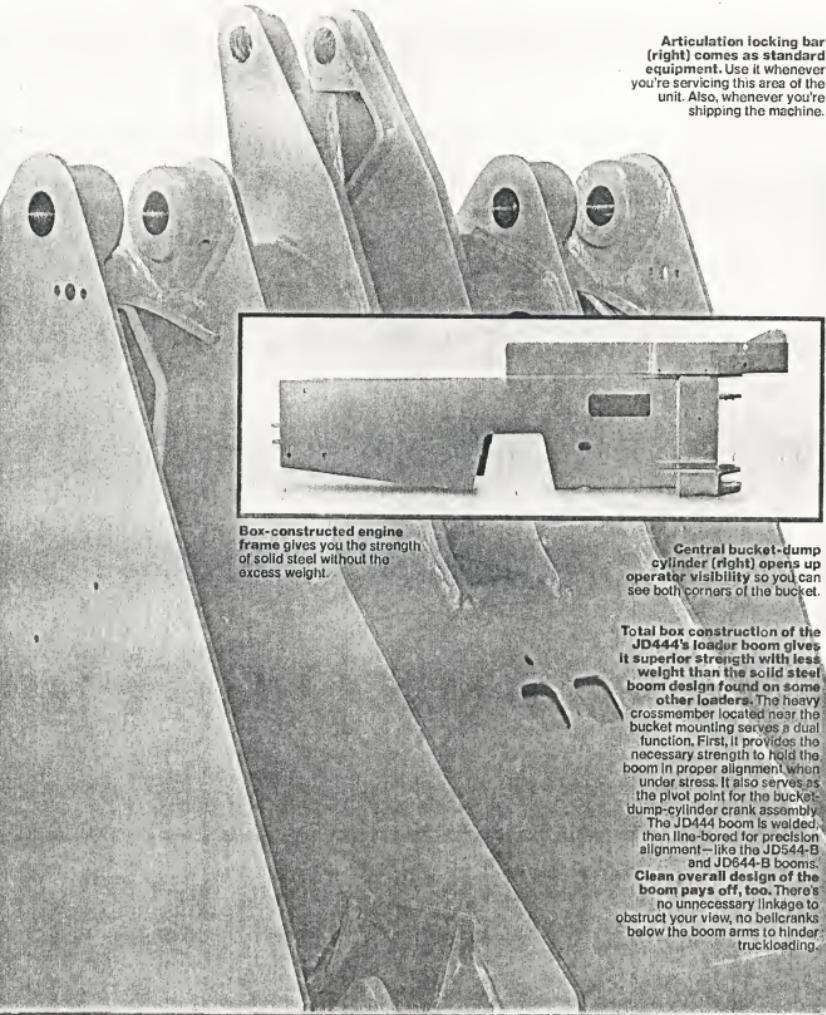
Structural durability is built into the JD444

The working end of any 4-wheel-drive loader has to be able to withstand the toughest of operating conditions. With the JD444, durability is built in right from the start. This massive equipment frame is manufactured from heavy formed steel that has been strengthened to resist torsional stress from the worst operating conditions. Engineering tests prove this.

All cylinder mountings and attaching points are line bored for precision accuracy. This not only ensures accuracy, but it means a longer life for all moving parts.

The JD444 equipment frame is a totally welded structure. There are no bolt-ons of crossmembers, which with time could weaken the structure.

The same holds true for the box-constructed engine frame. Here, you get good solid strength without the excess weight you would get with a solid type of construction. The engine frame also serves as the mounting point for the transmission and oscillating rear axle.



Articulation locking bar (right) comes as standard equipment. Use it whenever you're servicing this area of the unit. Also, whenever you're shipping the machine.

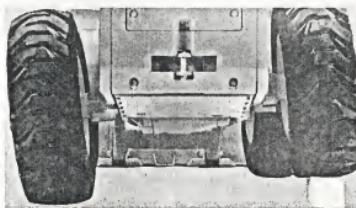
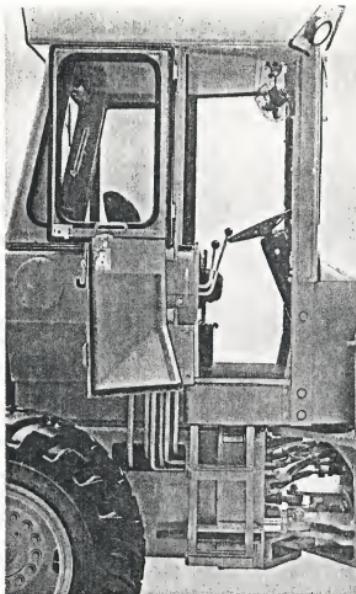
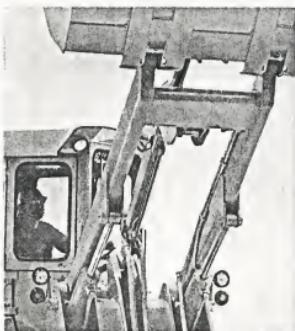
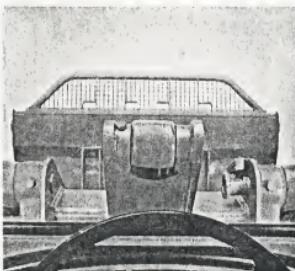
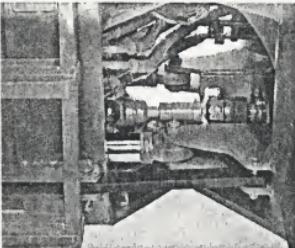
Box-constructed engine frame gives you the strength of solid steel without the excess weight.

Central bucket-dump cylinder (right) opens up operator visibility so you can see both corners of the bucket.

Total box construction of the JD444's loader boom gives it superior strength with less weight than the solid steel boom design found on some other loaders. The heavy crossmember located near the bucket mounting serves a dual function. First, it provides the necessary strength to hold the boom in proper alignment when under stress. It also serves as the pivot point for the bucket-dump-cylinder crank assembly.

The JD444 boom is welded, then line-bored for precision alignment—like the JD544-B and JD644-B booms.

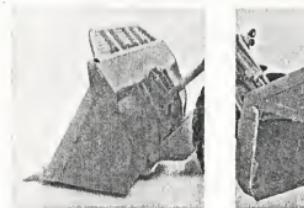
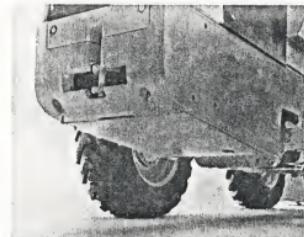
Clean overall design of the boom pays off, too. There's no unnecessary linkage to obstruct your view, no bellcranks below the boom arms to hinder truckloading.



Oscillating rear axle with 13½-inch total travel helps maintain good working balance, smooths the ride and keeps full power on the ground.

Optional JD444 cab features
integral ROPS, seat belt, tinted safety-plate glass, rear window ventilation, and 2-piece doors. Steel steps and hand-holds help make entry and exit safe from either side and the open-step design allows mud and debris to fall through. The platform is wide and clear of obstructions, so you have plenty of room.

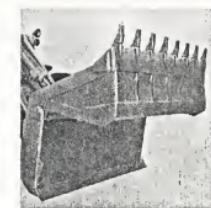
Integral rear counterweight adds stability to the JD444 and also incorporates the draw-bar for more machine versatility. Standard rear bottom guard of heavy steel completely encloses the engine compartment for protection from rock and other debris.



The standard 1½-cubic-yard bucket is designed to load easily. It features a high-carbon steel wraparound cutting edge; side cutting edges; box construction splitsheet; heavy bottom skidplates; heavy bottom skidplates that wrap around the back, incorporating the mounting points to the boom. Bucket teeth and top screen are optional.

For added versatility the JD444 can be equipped with the 9450 Backhoe. ICED digging depth is 12 feet 11 inches, total reach is 17 feet 6 inches, dipper-stick lift to full height is 2000 pounds, and boom lift to full height is 1400 pounds.

Twelve buckets ranging in size from 12 to 36 inches are also available.



The 1½-cubic-yard multi-purpose bucket can be used as a loader, bulldozer, scraper, or clam. This bucket has features similar to the general-purpose bucket, including high-carbon steel wraparound cutting edges, bolt-on teeth, and box-constructed splitsheet. A 3-yard light-materials bucket also is available.

Everything opens up for servicing

Hinged side panels swing open for servicing. Engine oil and filter, fuel tank and filter, air filter, and cold-weather starting aid all can be serviced from the left side of the machine.

Engine coolant can be checked from atop the hood. Foot and handholds make it an easy job, too.



Batteries can be checked from inside the cab, where they're safe from vandals and away from engine heat.

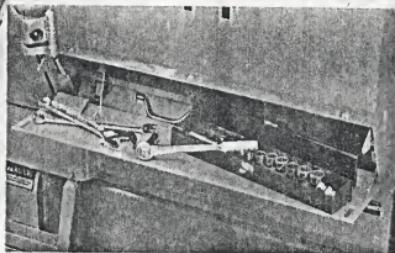


Dust bowl atop the hood unscrews for quick periodic cleaning. Visual inspection tells you when it's time for servicing.



Everything locks up at night

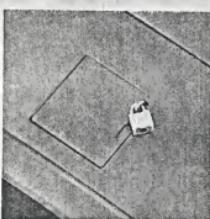
Built-in toolbox on the left side of the machine is large enough to hold all the tools you'll ever need.



Hydraulic system reservoir can be checked with just a glance at the sight gauge on the right side of the machine.



There's no crawling under the machine to change engine oil. Oil drain is conveniently located here on the left rear of the machine.

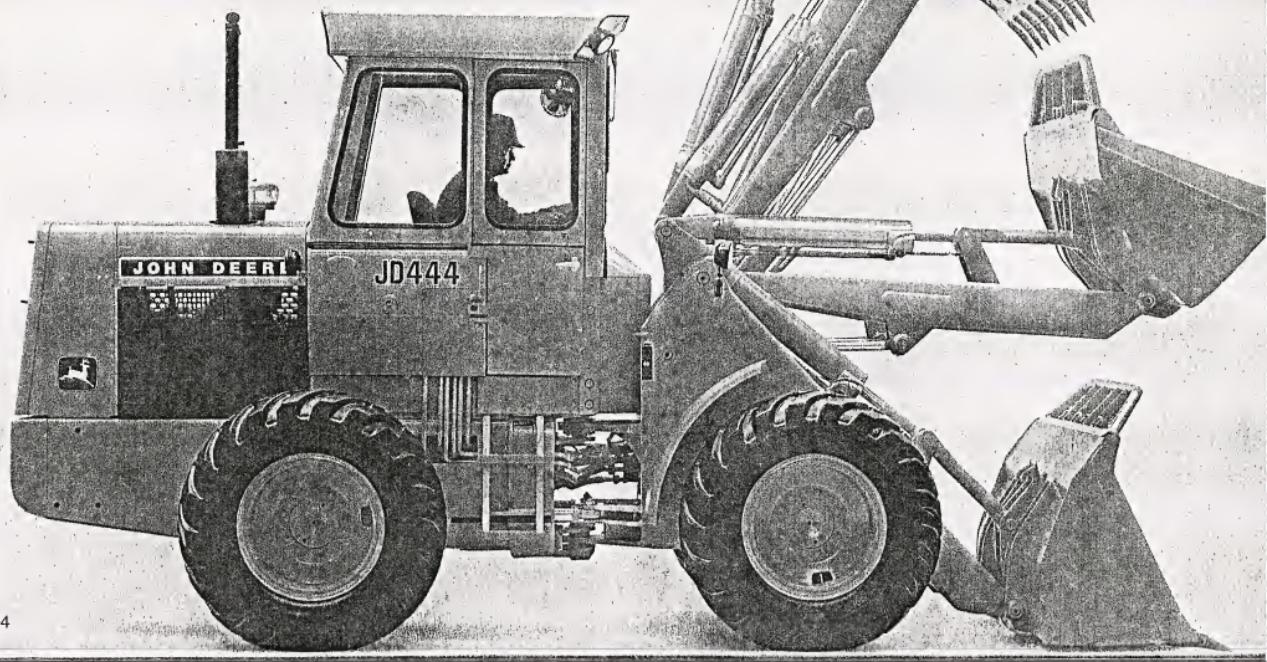


JD444 benefits don't stop at the end of the day. They keep working for you round the clock—even when you're not there. A good example is vandal protection. Optional cab and engine compartment doors plus radiator compartment and toolbox all lock up. For loaders with ROPS canopy, instrument panel covers with locks are standard.

So when you lock up the JD444 at the end of the day, you can be assured it will be that way the next morning.

JD444 Loader Specifications

(Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with ICED and SAE Standards. Except where otherwise noted, specifications are based on a machine equipped with all standard equipment, 16.5-25, 8-ply loader-tread tires, ROPS cab, full fuel tank, and 175 lb. (79 kg) operator.)



POWER @ 2400 ENGINE RPM:

	SAE	DIN
Gross	95 hp (70.8 kW)	
Net	85 hp (63.4 kW)	90.4 PS

Net engine flywheel power is for an engine equipped with fan, air cleaner, water pump, lubricating oil pump, fuel pump, alternator, and muffler. Gross engine power is without fan. Flywheel power ratings are under SAE standard conditions of 500-ft. altitude and 85°F. temperature and DIN 70 020 standard conditions of 760 mm Hg barometer (sea level) and 20°C temperature. No derating is required up to 5000 ft. (1524 m) altitude. *In the International System of Units (SI), power is expressed in kilowatts (kW).

ENGINE: John Deere diesel, vertical 6-cylinder, 4-stroke.

Bore and stroke	4.02 x 4.33 in. (102x110 mm)
Piston Displacement	329 cu. in. (5391cm ³)
Compression ratio	16.7 to 1
Maximum torque @ 1400 rpm	228 lb-ft (308 Nm) (31.5 kg-m)

NACC or AMA (U.S. Tax) horsepower	38.6
Lubrication	Pressure system w/full-flow filter
Cooling	Pressurized w/thermostat and controlled bypass

Fan	Blower
Air cleaner w/restriction indicator	Dry
Electrical system	12-volt w/alternator

Batteries (two 6-volt)... Reserve capacity: 420 minutes

TORQUE CONVERTER

Type	Twin turbine
Torque multiplication	5.44 to 1
Transmission	Power Shift planetary

Forward Speeds	mph	km/h
1	0-2.8	0-4.5
2	2.8-6.5	4.5-10.5
3	0-10.7	0-17.2
4	10.7-22.5	17.2-36.2

Reverse speeds	0-3.8	0-6.1
2	3.8-8.5	6.1-13.7

Note: Shift from 1st to 2nd and 3rd to 4th is automatic.

DIFFERENTIALS:

Front and Rear..... Standard

DRIVE AXLES: Inboard-mounted planetary gears to each wheel. Front axle fixed. Rear axle oscillates 22-degree total (13.5 inches [343 mm] vertical travel at center of tire).

BRAKES: Service... Power actuated, 4-wheel, inboard-mounted wet-disk. Foot-operated by either right or left pedal. Parking... 10x1.5 inch (254x38 mm) expanding shoe on transmission output shaft. Adjustable, hand-operated, with warning light and buzzer.

STEERING: Full power steering. Frame articulated 80 degrees by two hydraulic cylinders. Turning radius of 13 feet 10 inches (4.22 m).

HYDRAULIC SYSTEMS:

Loader: functions... Independent engine-driven vane pump delivers 39.5 gpm (149.5 l/min) at 600 psi (41.4 bar) (42.2 kg/cm²) and 2400 engine rpm. 2250 psi (155 bar) (158.2 kg/cm²) relief valve pressure setting.

Control: ...Single-lever, dual hydraulic valve. Optional triple hydraulic valve with separate lever.

Steering and brakes... Engine-driven, 8-piston, variable-displacement pump delivers 26.0 gpm (98.4 l/min) at 2200 engine rpm and 2000 psi (137.9 bar) (140.6 kg/cm²). Maximum system pressure is 2400 psi (165.5 bar) (168.7 kg/cm²).

HYDRAULIC CYLINDERS:

Bore

Stroke

Boom, two... 5.25 in. (133 mm) 22.26 in. (565 mm)

Bucket, one... 5.25 in. (133 mm) 25.28 in. (642 mm)

Cylinder rods... Ground, heat-treated, chrome-nickel-plated, polished

Boom and bucket cylinder rods... 2.25 in. (57 mm) dia.

TIRES:

15.5-25, 8-ply-rating, loader tread

15.5-25, 12-ply-rating, loader tread

13.00-24, 8-ply-rating, grader tread

WHEEL TREADS:

Front and rear..... 70 in. (1.78 m)

CAPACITIES: U.S. Liters

Cooling system..... 32 qt. 30.3

Fuel tank..... 40 gal. 151.4

Crankcase..... 11 qt. 10.4

Crankcase, including filter..... 12 qt. 11.4

Transmission case and filters..... 40 qt. 37.9

Front and rear differentials..... 17 qt. 16.1

Loader hydraulic sump..... 52 qt. 49.2

STANDARD EQUIPMENT: Adjustable cushioned seat; front fenders; single-lever loader control; power steering; power brakes; transmission disconnect; instrument panel cover with lock; gauges: transmission oil temperature, transmission oil pressure, fuel level, coolant temperature, engine oil pressure, electric hourmeter, voltmeter; loader hydraulic system indicator; key switch; pushbutton safety start; cigarette lighter; parking brake warning light and buzzer; transistorized voltage regulator; lights; horn; fuel filter; automatic return to dig; vertical muffler w/rain cap; rear bottom guard; hand grips; fixed drawbar; ROPS canopy and seat belt; antifreeze; pre-cleaner; ether starting aid.

SPECIAL EQUIPMENT: ROPS cab and seat belt; ROPS quiet cab; work lights; flashing and turn signal lights; reverse warning alarm; rear axle disconnect; triple loader hydraulic valve; bucket teeth; heater; engine coolant heater; No-Spin front axle differential; center and front bottom guard; license plate bracket; defroster fan; automatic boom height control; auxiliary spill guard; SMV emblem; auxiliary cutting edges; engine side shields; suspension seat.



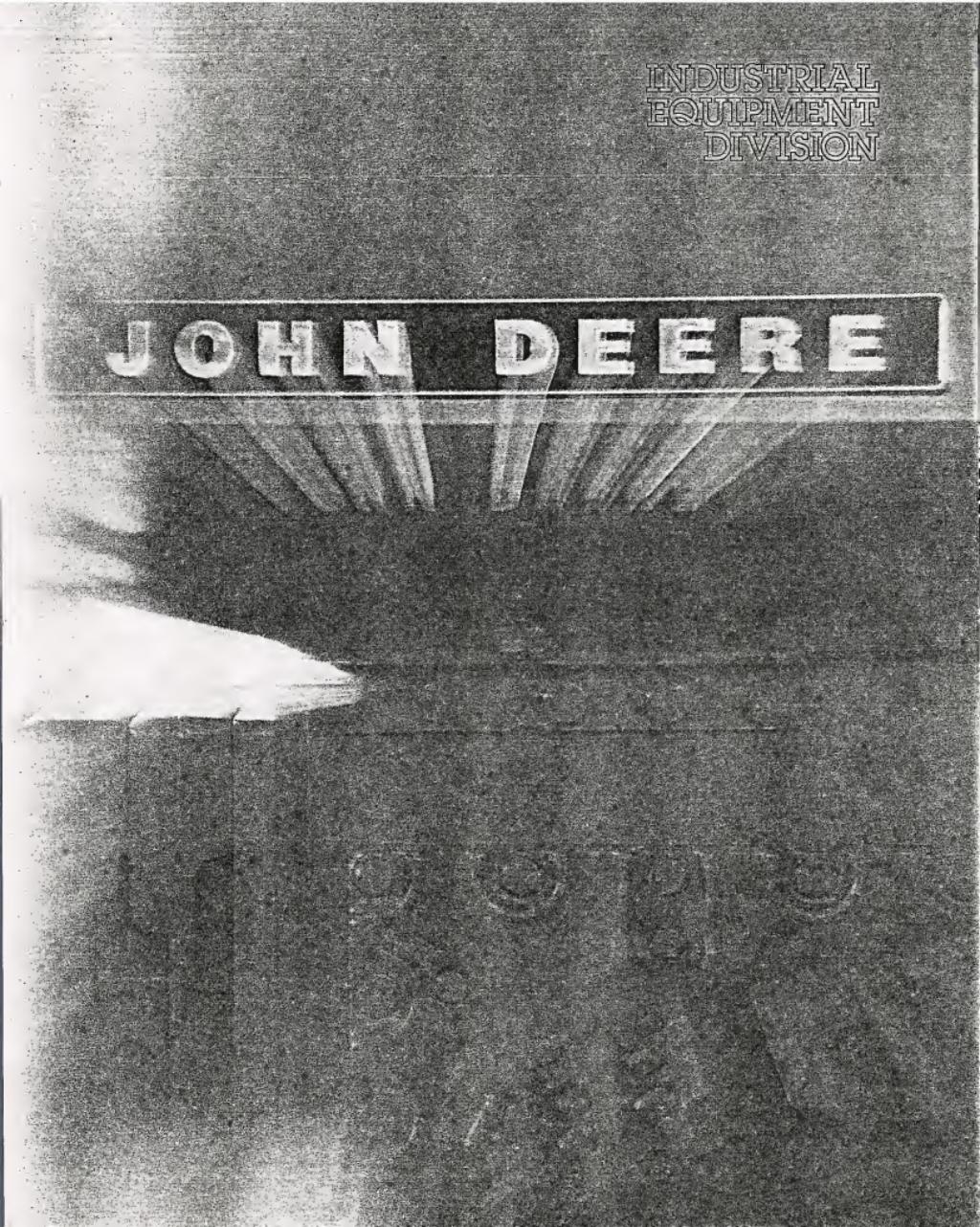
JOHN DEERE on the move

Innovative designs and a broadening product line are a big part of John Deere on the move. But there's a lot more. Keeping these innovations and new products coming takes a lot of field support. John Deere gets that support from a strong worldwide dealer organization. Your John Deere dealer has the capability to give you the most comprehensive equipment service and finance support supplied in the industry. Talk to him now.



INDUSTRIAL
EQUIPMENT
DIVISION

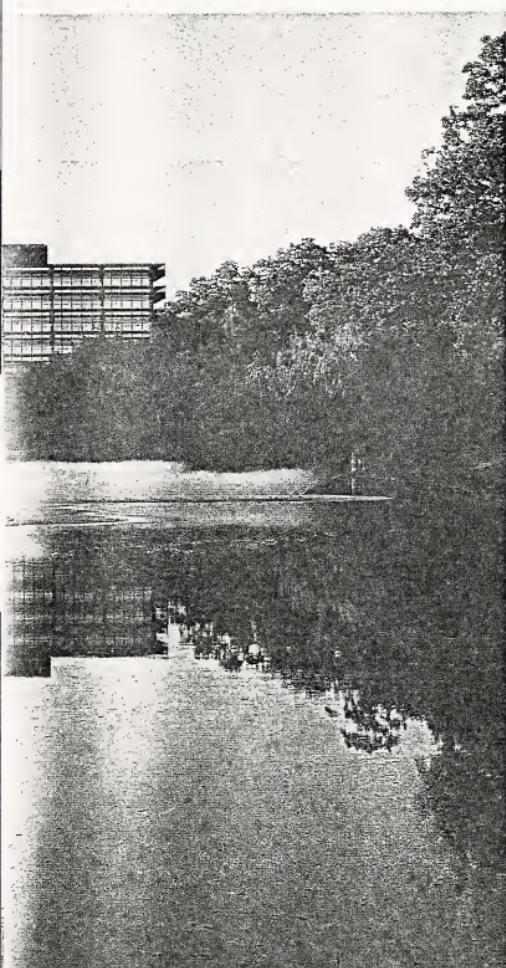
JOHN DEERE





JOHN DEERE

On the move worldwide



From a rather modest producer of small earthmoving machines in the 1950s, John Deere today has become a leading manufacturer of equipment for the construction, utility and forest industries, with products sold in most countries around the world. The John Deere Industrial Equipment Division began operations a generation ago, more than 120 years after John Deere forged the first successful steel plow.

The philosophy that led the Company to a position as world leader in farm equipment sales is the cornerstone of industrial equipment policy as well. In the words of Deere & Company Chairman William A. Hewitt, "It is a philosophy that stresses quality products sold through a strong dealer network, backed by superior parts and service support. It is one that emphasizes research and development, innovative products, and excellence in design. It is a philosophy that brings strong competitive value to the marketplace."

The following pages provide a close look at the Industrial Equipment Division, for better understanding of how and why John Deere is growing and on the move worldwide.

*Deere & Company Worldwide
Headquarters, Moline, Illinois*

GROWTH

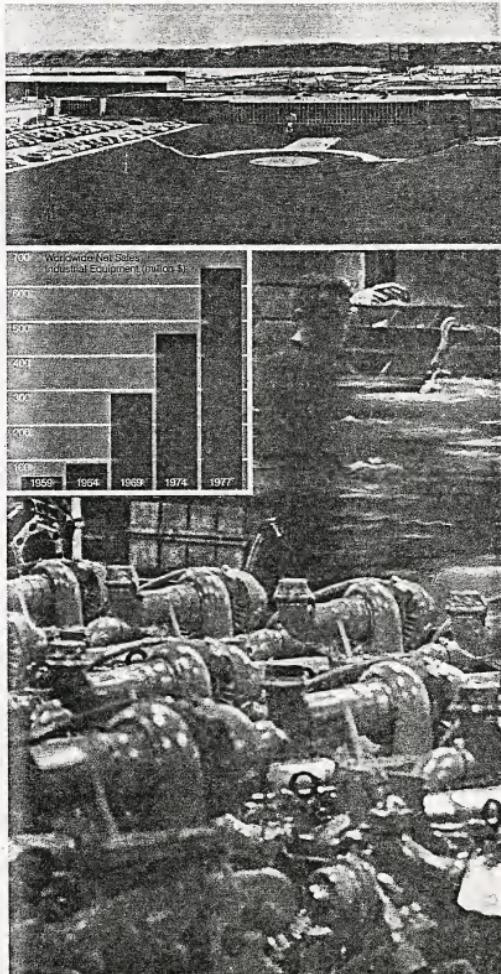
Carefully planned expansion throughout the world

Sales of John Deere industrial equipment have climbed steadily as market coverage has extended to six continents around the world. For example, industrial sales have more than doubled every five years since 1960. The compounded annual growth rate of nearly 20 percent is about twice that of the industry average over the same period.

John Deere began the manufacture of industrial equipment by introducing machines at the lower end of the horsepower range in seven major product categories. As the machines rapidly gained acceptance in the field, John Deere came on strong with larger and more productive equipment to fill out the lines. Now, more than 65 industrial products are manufactured for use by builders, earthmovers, loggers and government agencies around the world.

Much of the move toward larger equipment has come in the past few years. Since 1974 John Deere has introduced, or is in the process of introducing, three crawler bulldozers, three crawler loaders, an elevating scraper, two motor graders, two 4-wheel-drive loaders, four log skidders, a tree harvester, and several tracked and wheel-type hydraulic excavators.

With the addition of a European Industrial Headquarters in Brussels, John Deere has focused attention on developing strong worldwide markets for these and other products. The efforts have resulted in steady increases in sales outside North America, in many countries where there is a substantial demand for industrial equipment.



EMPLOYEES

Dedicated people with
a strong sense of responsibility

The real impetus for growth comes from the more than 10,000 employees worldwide who are directly involved in the design, manufacture and sale of industrial products. With a strong sense of personal motivation and responsibility, these men and women have made the John Deere Industrial Equipment Division what it is today.

At John Deere, the emphasis always has been on finding capable employees—people with initiative, concern and pride in the job they're doing. The aim is to hire the best people, to challenge them, and then be sensitive to their personal development.

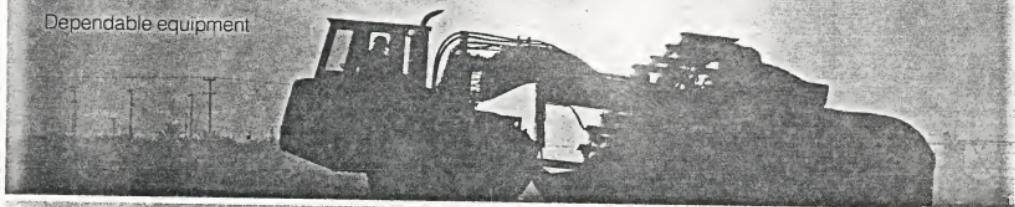
At the base of John Deere's hiring policy is a firm commitment to the principle of equality. Special development programs help ensure equal opportunity for all employees.

Under the Company's long-standing philosophy of decentralization, people in each level of management at the various units make the operating decisions appropriate to that level—as needs arise and close to the action. This decentralized system not only provides better informed and more timely decisions; it builds trust and respect for managers' opinions and gives them more freedom to do the job.



PRODUCTS

Dependable equipment



1. Elevating scrapers—capacities 11 and 15 cu. yd. (8.4 m³ and 11.47 m³)

2. Articulated motor graders include one model with all-hydraulic pushbutton control.

3. Utility tractors meet a variety of mowing and landscape needs.

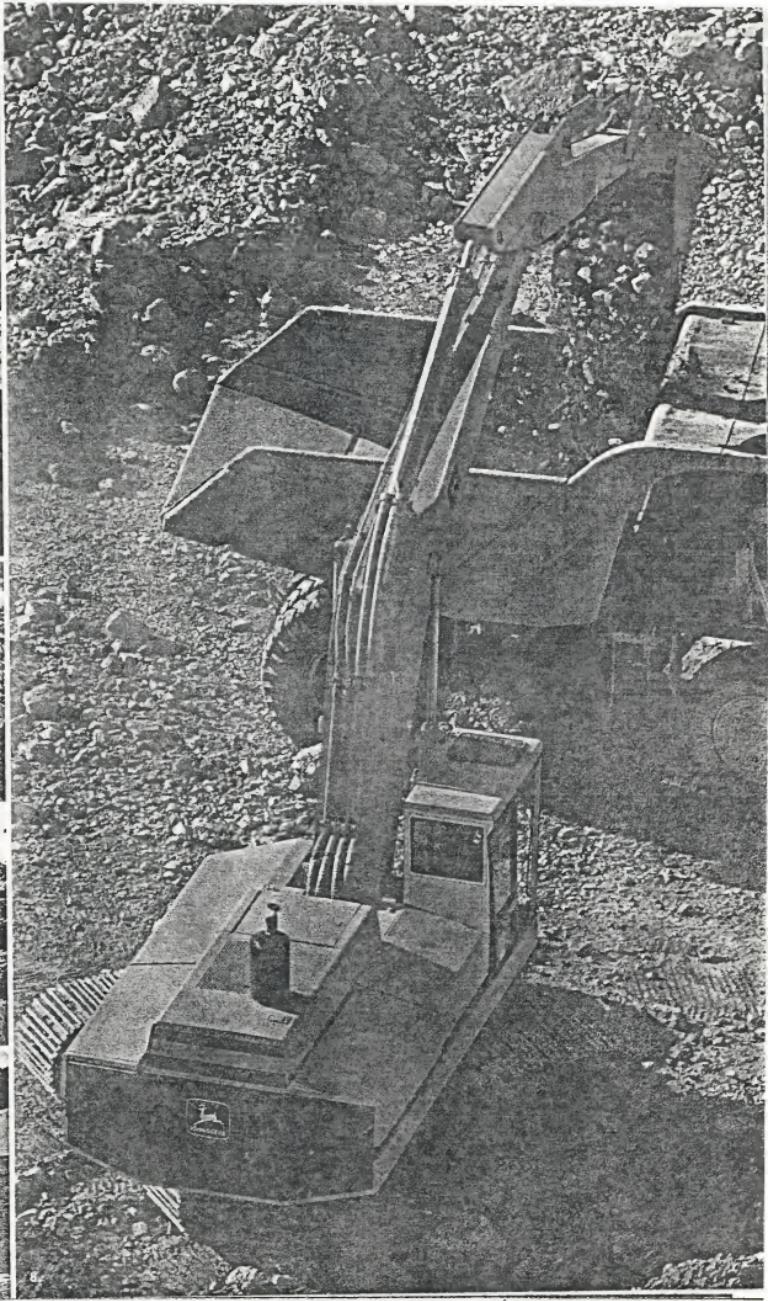
4. Utility crawler loaders and bulldozers—popular choices in the 42 to 72 SAE net hp range (31.3 to 53.7 kW).

5. Backhoe loaders have digging depths and bucket sizes to match the job.

**6. High-capacity John Deere Skid-
ders** work in forests throughout the world.

7. Materials-handling equipment includes fast-moving 4-wheel-drive loaders.

**8. Pipelines and heavy con-
struction** are markets for the large excavator.



PRODUCTS

To meet a wide variety of needs

1. Crawler bulldozers and loaders with hydrostatic drive are industry leaders.

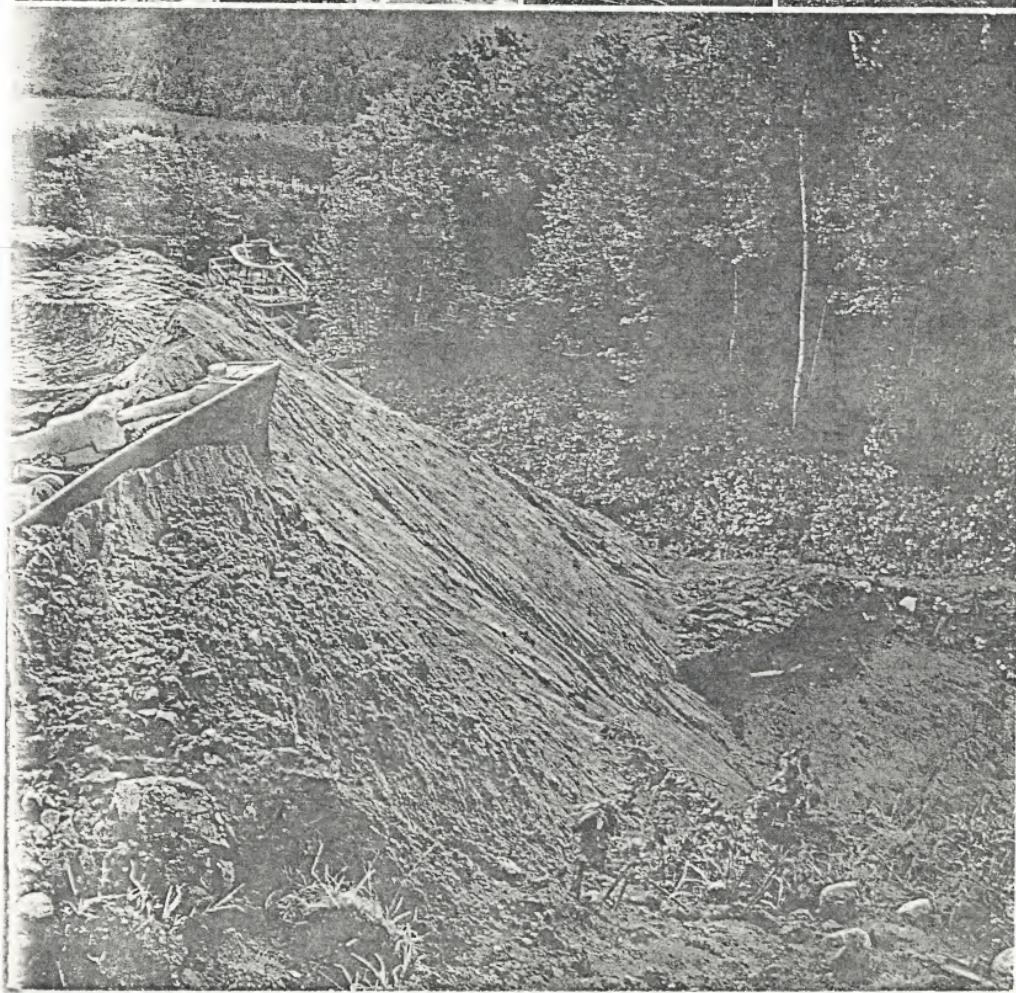
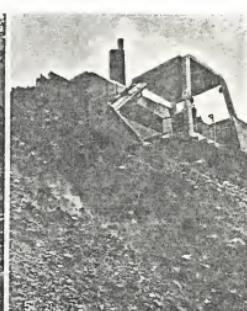
2. Forklifts serve materials handling, building and forestry needs.

3. Tree harvester cuts and delimbs simultaneously.

4. Grapple skidders meet the challenge of difficult terrain.

5. 145-SAE-net-hp (108 kW) bulldozer is one example of John Deere's move to larger and more productive equipment.





PRODUCTS

Anywhere in the world



1. In a village near Paris, a wheel-type excavator moves the earth so repairs can be made to a centuries-old cathedral.

2. Skidder moves pulpwood to the landing in a timber-rich area of western Canada.

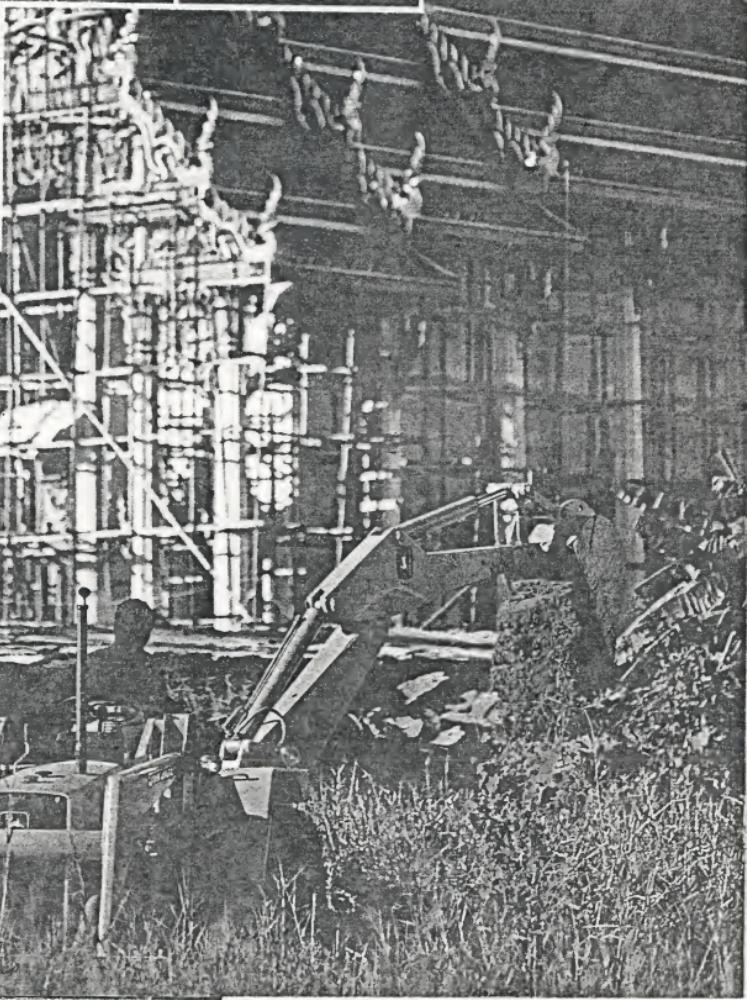
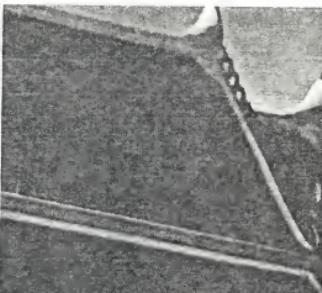
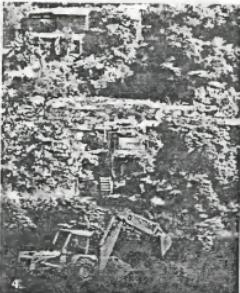
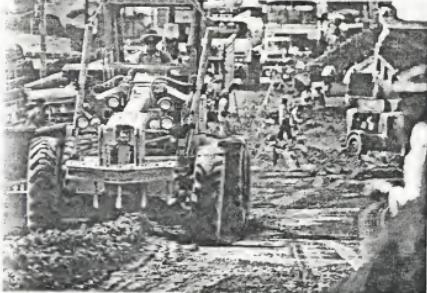
3. Motor grader prepares the base for widening a busy thoroughfare in Bangkok, Thailand.

4. 80-SEAE-net-hp (59.7 kW) backhoe loader works on a trenching project near Caracas, Venezuela.



5. A 4-wheel-drive loader is used to handle gravel at a quarry operation in Europe.

6. Service lines are extended to a Buddhist temple under construction in southeast Asia.



ENGINEERING

Progressive leadership
in innovative machine design

John Deere has consistently been a leader in innovative design. Known and respected for high technology and sophisticated equipment, the Company has been an innovator both in the development of entire machines and in components for use in several lines.

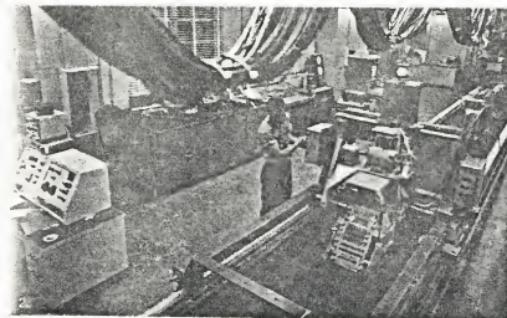
For example, John Deere pioneered in development of the articulated motor grader and a tree harvester that cuts and delimbs simultaneously. It also led in the introduction of two-lever backhoe control, single-lever loader control, inboard planetary final drives, closed-center hydraulics, self-adjusting wet-disk brakes, and automatic hydrostatic drive systems for crawlers, to name only a few.

In addition, John Deere is widely known for its equipment styling and for its contributions to the comfort and environmental safety of the machine operator. In meeting these important "human engineering" objectives, the Company has worked closely with the Henry Dreyfuss organization of industrial designers for many years.

Today, John Deere engineers continue to put increased emphasis on developing products that possess a high degree of design compatibility, excellence of performance, and interchangeability of parts. As much as possible, machines are designed with similar service requirements, common fuels and hydraulic fluids, and a family relationship in styling, operator controls, ease of operation, and comfort and safety features.

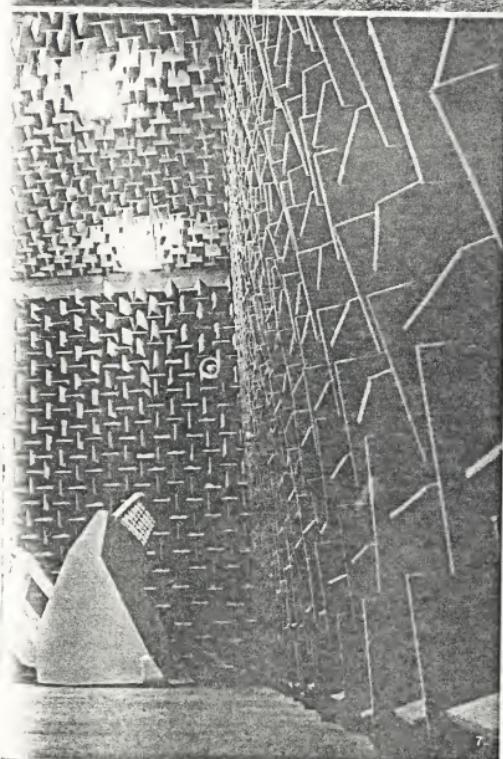
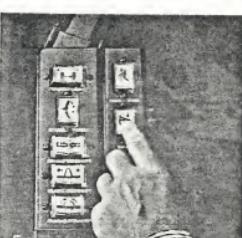
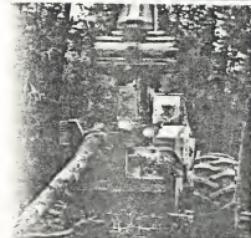
To implement its engineering functions, John Deere employs several hundred men and women, many of whom are assigned to the large Industrial Product Engineering Center at Dubuque, Iowa, U.S.A. The Company regularly spends about 4 percent of each sales dollar for industrial product research and development... well above the average spent by the industry.





1. Factory engineers check machine stability and balance on a specially designed tilt table.

2. At the John Deere Technical Center, ground-engaging equipment is modeled and tested under precisely controlled conditions in the soil dynamics laboratory.



3. The tree harvester illustrates John Deere leadership in forest mechanization. Self-propelled harvester shears and delims simultaneously.

4. John Deere revolutionized motor grader design in 1967 when it introduced the original all-hydraulic articulated motor grader.

5. Another innovative first came a decade later—hydraulic pushbutton control for all basic motor grader functions.

6. With its 110-net-hp (82.5kW) crawlers, John Deere led in the development of fully automatic dual-path hydrostatic drive, a high-production feature.

7. In special sound rooms, engineers work to reduce noise levels—for the persons who operate the machines and for those who live and work in the areas where they are used.

MANUFACTURING

Modern technology
with the emphasis on quality

The John Deere name is synonymous with quality. Because quality, more than anything else, builds the confidence and respect of customers, it gets priority attention wherever John Deere industrial equipment is manufactured.

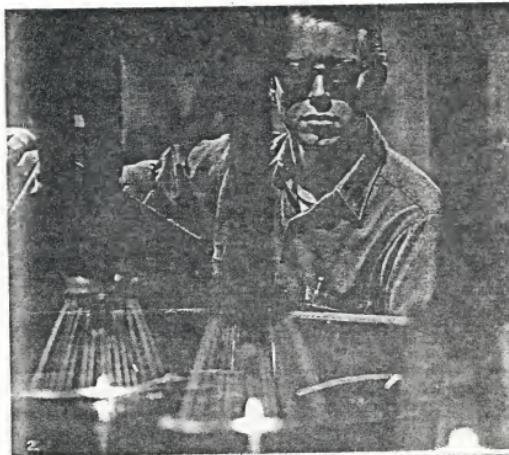
The Company's largest industrial manufacturing facility is located at Dubuque, Iowa, and is a sprawling complex with well over 5 million square feet (464 500 m²) under roof. Like a small city in many respects, the factory generates most of its own power supply, and has its own fire department, sewer system, water supply, medical center, air strip, and other vital support facilities.

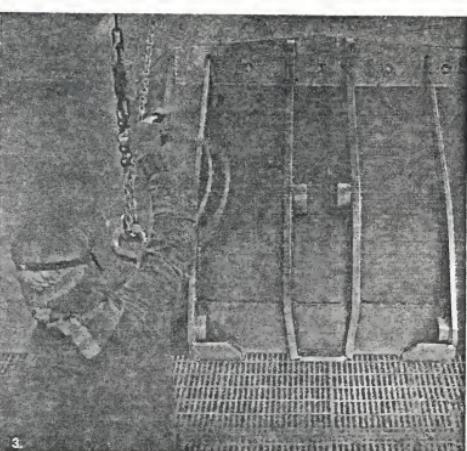
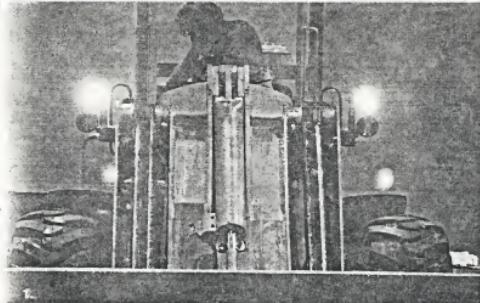
Production of industrial equipment got under way in 1975 at the ultramodern Davenport (Iowa) Works. More than one million square feet (92 900 m²) of manufacturing space already are being used, and there is plenty of room to grow. Industrial equipment also is produced in Rosario, Argentina; Mannheim, Germany; Saran, France; and Perth, W. Australia.

At each factory, quality control begins with the inspection of all incoming raw materials, rough castings, and purchased components. Each shipment must meet rigid John Deere quality standards.

In addition to numerous inspection stations along the production lines, each worker is his own inspector. From fabricating to finish work, these skilled craftsmen provide and maintain quality control in the assembly of John Deere products. At the end of the line, each complete unit is tested thoroughly before being released for distribution.

John Deere manufactures most of the major components that are assembled into the products it sells. Engines, for example, have been built by the Company for more than 60 years. Today, John Deere is a major producer of diesel engines, with large-volume manufacturing capability at Waterloo and Dubuque, Iowa, and at Saran, France.





1. Inspectors check all operating functions before machines are released for distribution.

2. Flame cutter with electronic numerical controls produces identical parts, automatically and accurately.

3. Each component is carefully primed and then painted by automatic spraying, hand-spraying, or dipping.

4. At the John Deere Engine Works, Waterloo, Iowa, nearly 930,000 square feet (86 000 m²) are devoted exclusively to the production of diesel engines.

5. Industrial equipment is manufactured at six John Deere factories—Dubuque and Davenport, Iowa, USA; Rosario, Argentina; Perth, W. Australia; Saran, France; and Mannheim, Germany.

DEALERS

A commitment to serve
around the world

To get products where they're needed on six continents, and to back them with complete support services, requires an enormous commitment to marketing. John Deere fulfills that commitment through its worldwide network of independent industrial dealers.

John Deere dealers identify closely with their customers, understand their problems and needs, and maintain close ties with the communities in which they live and conduct their businesses. They are consistently mentioned by customers as the primary reason for buying John Deere equipment.

A dealer's commitment in terms of energy, talent and capital is considerable. He and his sales and service personnel also must be highly knowledgeable in many areas. They must understand the products they sell, the technology involved in using them, and how the products can return a profit to those who buy them.

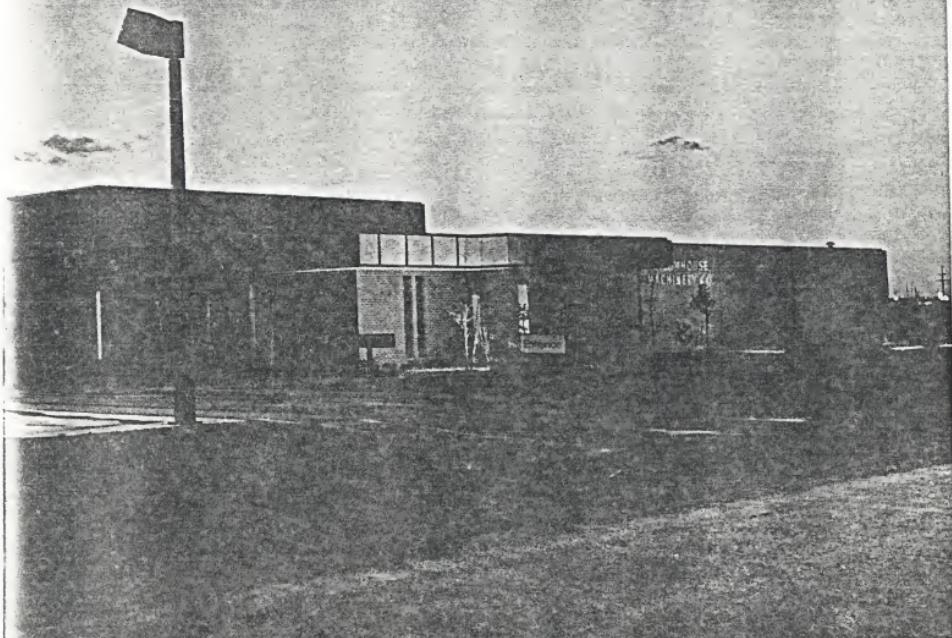
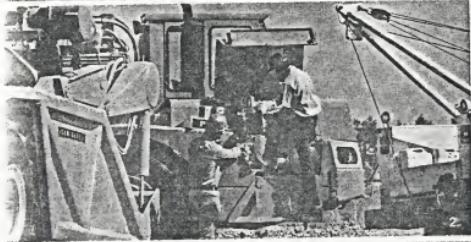
John Deere dealers take as much pride in their service capabilities as they do in the quality and performance of the products themselves. Already-skilled service technicians become even more proficient at Company-sponsored training centers where they keep up-to-date on the latest service procedures, techniques and tools.

In addition, many dealers conduct regular service-training courses right at their dealerships. Instructional support provided by John Deere includes audio-visual and printed materials—some of the most modern and comprehensive in the industry.





1. With parts quickly available, service technicians such as these at Valencia, Venezuela, help hold machine downtime to a minimum.
2. John Deere dealers are equipped to handle routine maintenance or emergency repairs at the customer's jobsite or place of business.
3. More than 600 dealer outlets worldwide provide quality John Deere industrial equipment and product support to customers everywhere.



PRODUCT SUPPORT

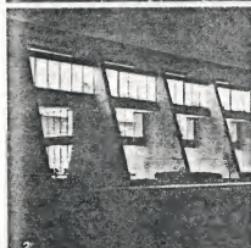
Essential backup for
John Deere dealers and customers

In John Deere's worldwide marketing structure, each dealer provides products and services to his customers at the retail level. Industrial sales regions provide these same products and services to their respective dealers at the wholesale level. Regions base their service on the special local needs and practices of customers. To help meet these needs, each industrial sales region is augmented by a substantial number of field personnel.

North American dealers are served from region offices in Baltimore, Maryland; Denver, Colorado; Moline, Illinois; and Burlington, Ontario, Canada. Dealers outside North America are served through the Brussels office and through John Deere Inter-continental Limited, headquartered in Moline.

The John Deere Industrial Marketing Division offers extensive support to dealers through sales and service training, and with programs on business management, parts and inventory control, product promotion, credit and finance.

Other Company programs are customer-oriented to assist those customers who seek specific product guidance. Many of these specialized services, including job planning and consultation, are offered to large contractors and government agencies through the John Deere National Sales Division.

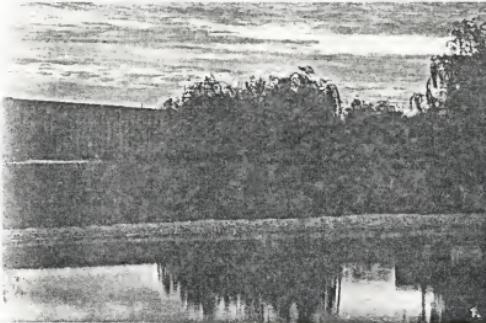


1. John Deere Television, with one of the most advanced studios of its type in the world, produces color video training tapes in many languages for use by dealers and customers throughout the world.

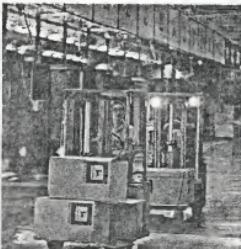
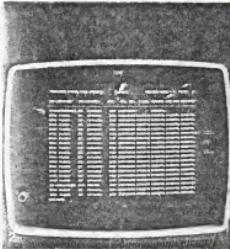
2. John Deere Industrial Equipment Company, Baltimore, Maryland, one of four regional sales offices in North America.

3. Planning meeting at the John Deere European Industrial Region Headquarters in Brussels.

4. Sales and product support training are provided at the Industrial Training Center, Dubuque, Iowa, and at the John Deere Training and Demonstration Site near Phoenix, Arizona.



Fast parts delivery
to keep equipment on the go



For John Deere customers who depend on their machines for a living, the Parts Distribution Warehouse is an important link in providing the prompt backup service they require.

This huge modern facility at Milan, Illinois, operates around the clock, keeping parts shipments flowing to dealers and regional parts depots throughout the world. With more than 33 acres (13 hectares) under roof, it is the central storage and distribution point for thousands of active John Deere industrial equipment parts.

The Warehouse is organized to respond quickly to emergency orders for seldom-needed parts, as well as keeping dealers and parts depots well stocked with routine and high-activity items.

Computer terminals at many dealerships help keep parts inventories up-to-date. Data on dealer inventory levels and usage is kept current in a central computer system. When a part is taken out of a dealer's stock, the computer reorders a replacement. It helps the dealer stay on top of his inventory, so he can have many of the required parts on hand before he actually needs them.

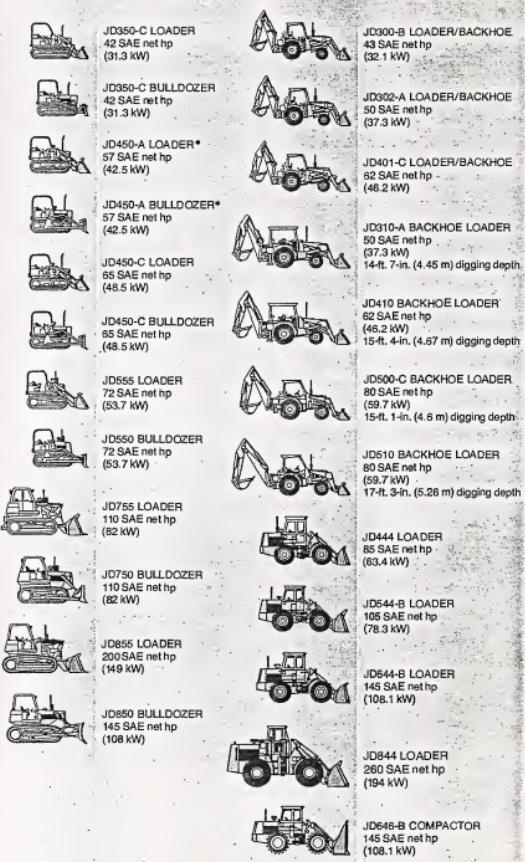
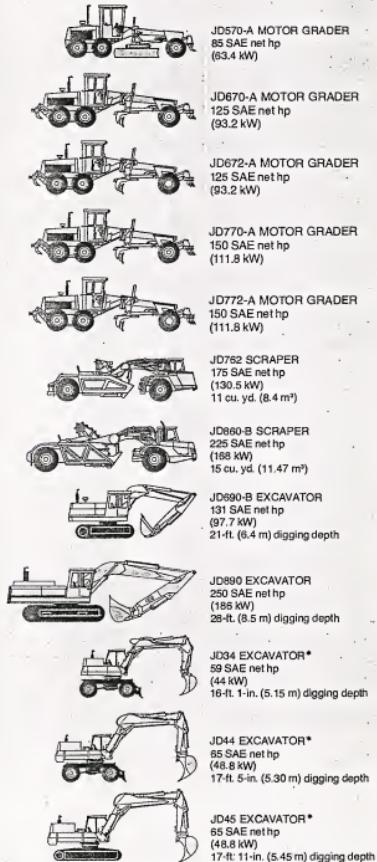
1. Huge Parts Distribution Warehouse at Milan, Illinois, has inventory of all industrial equipment parts items.

2. Computerized parts distribution systems help move vital repair parts to dealerships and regional depots quickly and efficiently.

3-4. Required parts can be quickly picked, packaged and shipped to dealers and depots around the world.

THE COMPLETE LINE

More than 65 reliable
John Deere products



*Not available in all parts of the world.

	JD301-A TRACTOR 43 SAE net hp (32.1 kW)		JD440-C SKIDDER 70 SAE net hp (52.1 kW)		JD350-C LOG LOADER 42 SAE net hp (31.3 kW)
	JD302 TRACTOR 50 SAE net hp (37.3 kW)		JD440-C GRAPPLE SKIDDER 70 SAE net hp (52.1 kW)		JD450-C LOG LOADER 65 SAE net hp (48.5 kW)
	JD401-B TRACTOR 62 SAE net hp (46.2 kW)		JD540-B SKIDDER 90 SAE net hp (67.1 kW)		JD555 LOG LOADER 72 SAE net hp (53.7 kW)
	JD301-A UTILITY LOADER 43 SAE net hp (32.1 kW)		JD540-B GRAPPLE SKIDDER 90 SAE net hp (67.1 kW)		JD380 FORKLIFT 43 SAE net hp (32.1 kW)
	JD302 UTILITY LOADER 50 SAE net hp (37.3 kW)		JD440 SKIDDER 110 SAE net hp (82 kW)		JD480-B FORKLIFT 62 SAE net hp (46.2 kW)
	JD401-B UTILITY LOADER 62 SAE net hp (46.2 kW)		JD640 GRAPPLE SKIDDER 110 SAE net hp (82 kW)		JD555 FELLER-BUNCHER 72 SAE net hp (53.7 kW)
	JD302-B LOADER 43 SAE net hp (32.1 kW)		JD740 SKIDDER 145 SAE net hp (108.1 kW)		JD693-B FELLER-BUNCHER 131 SAE net hp (97.7 kW)
	JD401-A LOADER 50 SAE net hp (37.3 kW)		JD740 GRAPPLE SKIDDER 145 SAE net hp (108.1 kW)		JD544-B FELLER-BUNCHER 105 SAE net hp (78.3 kW)
	JD401-C LOADER 62 SAE net hp (46.2 kW)		JD444 LOG LOADER 85 SAE net hp (63.4 kW)		JD743 FELLER-BUNCHER 152 SAE net hp (113.3 kW)
	JD24-A LOADER 37 SAE net hp (27 kW)		JD544-B LOG LOADER 105 SAE net hp (78.3 kW)		JD743 TREE HARVESTER 152 SAE net hp (113.3 kW)
			JD644-B LOG LOADER 145 SAE net hp (108.1 kW)		

PEOPLE SERVING PEOPLE

Ready to help—
now and in the future

As world population increases, so does the demand for adequate housing for millions more people, plus improved roads and transportation systems to move them through their daily lives.

It means that the needs for earthmoving, building, water and sewer installations, and waste disposal will increase markedly in the years ahead. John Deere will be there to help meet those needs with growing lines of highly productive equipment.

The promise of more productive John Deere industrial equipment in the future parallels a growing manufacturing and marketing organization. With factories, regional sales offices, and parts depots at strategic locations around the world, John Deere can meet the needs of customers on six continents.

People serving people. Thousands of John Deere men and women contributing to the welfare and progress of people everywhere. That has been the true expression of the John Deere Industrial Division for more than two decades... and will remain its foremost quality in the future.

WORLDWIDE HEADQUARTERS

Moline, Illinois

NORTH AMERICAN INDUSTRIAL SALES REGIONS

Baltimore, Maryland

Denver, Colorado

Moline, Illinois

Burlington, Ontario, Canada

OVERSEAS AND INTERCONTINENTAL INDUSTRIAL SALES REGIONS

Brussels, Belgium

Moline, Illinois

SPECIALIZED INDUSTRIAL SALES

National Sales Division

Moline, Illinois

FACTORIES PRODUCING INDUSTRIAL EQUIPMENT

Dubuque, Iowa

Davenport, Iowa

Rosario, Argentina

Mannheim, Germany

Saran, France

Perth, W. Australia

PARTS DISTRIBUTION WAREHOUSE

Milan, Illinois

PARTS DEPOTS

Baltimore, Maryland

Columbus, Ohio

Conyers, Georgia

Denver, Colorado

Dallas, Texas

East Moline, Illinois

Kansas City, Missouri

Lansing, Michigan

Memphis, Tennessee

Minneapolis, Minnesota

Portland, Oregon

Stockton, California

Syracuse, New York

Grimsby, Ontario, Canada

Regina, Saskatchewan, Canada

Monterrey, Mexico

Mannheim, Germany

Nottingham, England

Madrid, Spain

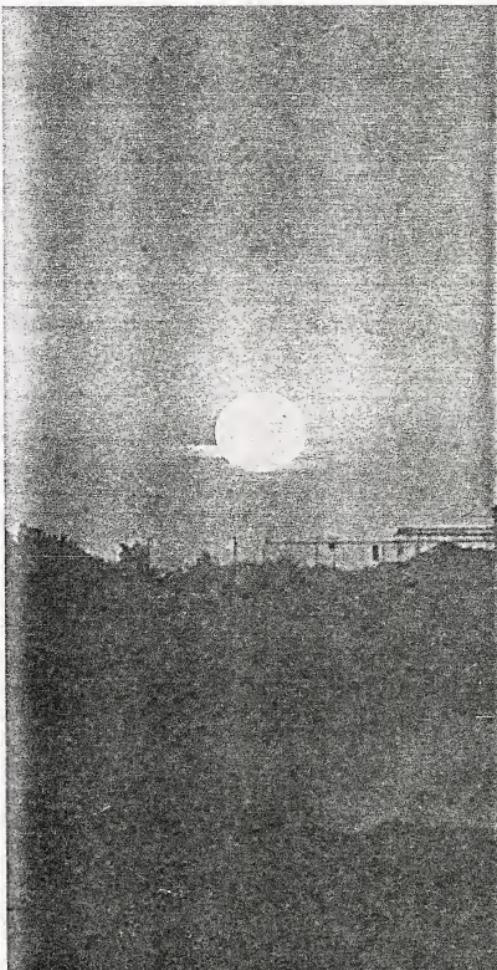
Milan, Italy

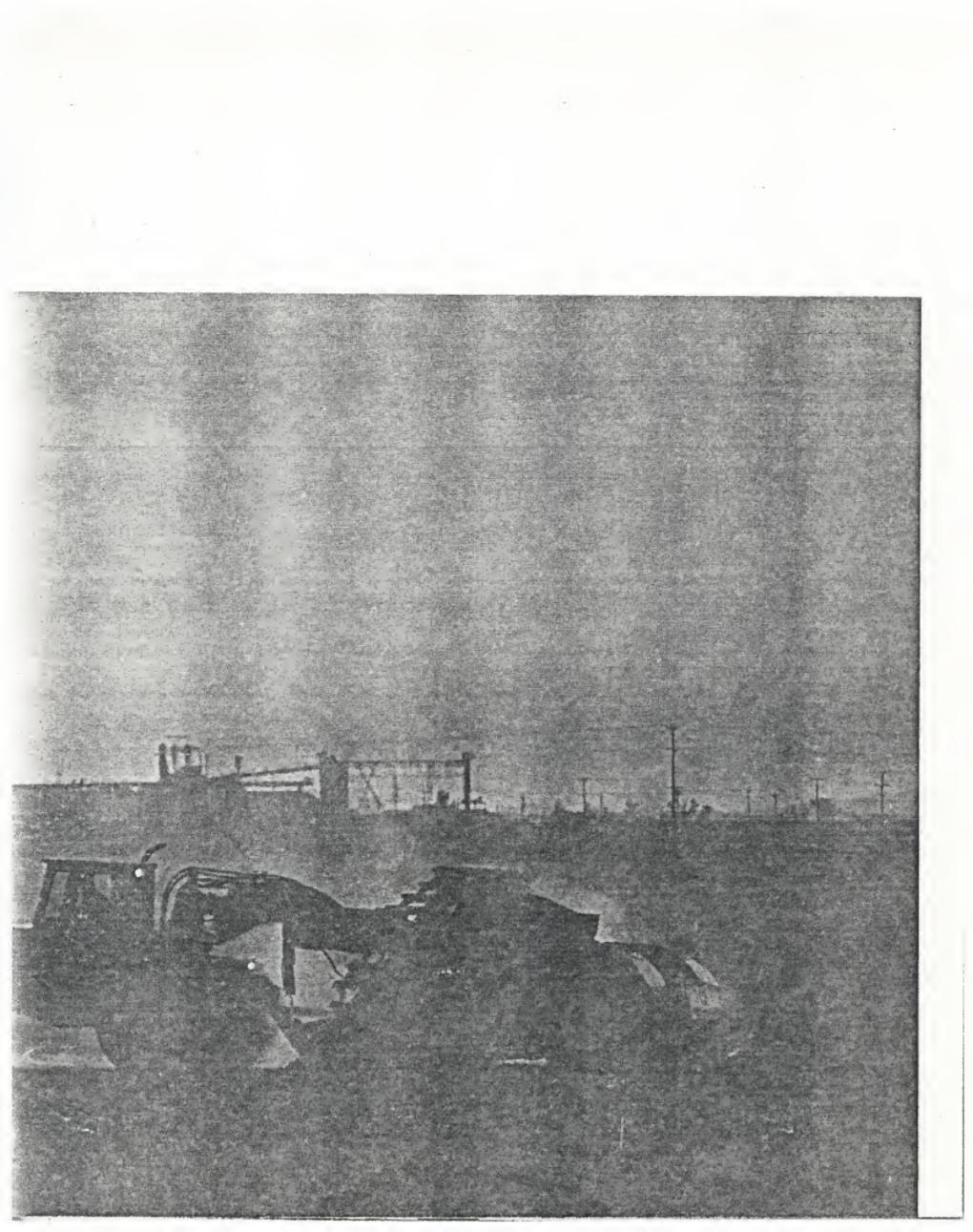
Ormes, France

Johannesburg, South Africa

Buenos Aires, Argentina

Perth, W. Australia







4918
TITLE OF ORDINANCE SPECIAL ORDINANCE - CIVIL CITY PURCHASE ORDER NO. 4-08651 - ALLEN COUNTY TRACTOR
SALES, INC.

DEPARTMENT REQUESTING ORDINANCE BOARD OF PUBLIC WORKS *8-80-07-26*

SYNOPSIS OF ORDINANCE CIVIL CITY PURCHASE ORDER NO. 4-08651 TO ALLEN COUNTY TRACTOR SALES, INC.

FOR ONE FORD A62, 1980 FRONT END LOADER W/ROPS, CAB IN AMOUNT OF \$33,162.91 FOR USE BY THE STREET
DEPARTMENT.

(CIVIL CITY PURCH. ORDER NO. 4-08651 ATTACHED)

(PRIOR APPROVAL ACQUIRED JULY 7, 1980, A COPY OF WHICH IS ATTACHED HERETO)

EFFECT OF PASSAGE ADDITIONAL EQUIPMENT FOR USE BY THE STREET DEPT.

EFFECT OF NON-PASSAGE

MONEY INVOLVED (DIRECT COSTS, EXPENDITURES, SAVINGS) \$33,162.91 FROM 1980 REVENUE SHARING FUNDS

ASSIGNED TO COMMITTEE

Finance